"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.

Unified switching system for external lighting of motor vehicles. Avt. transp. 42 no.6:47-48 Je '64 (MIRA 17:7)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

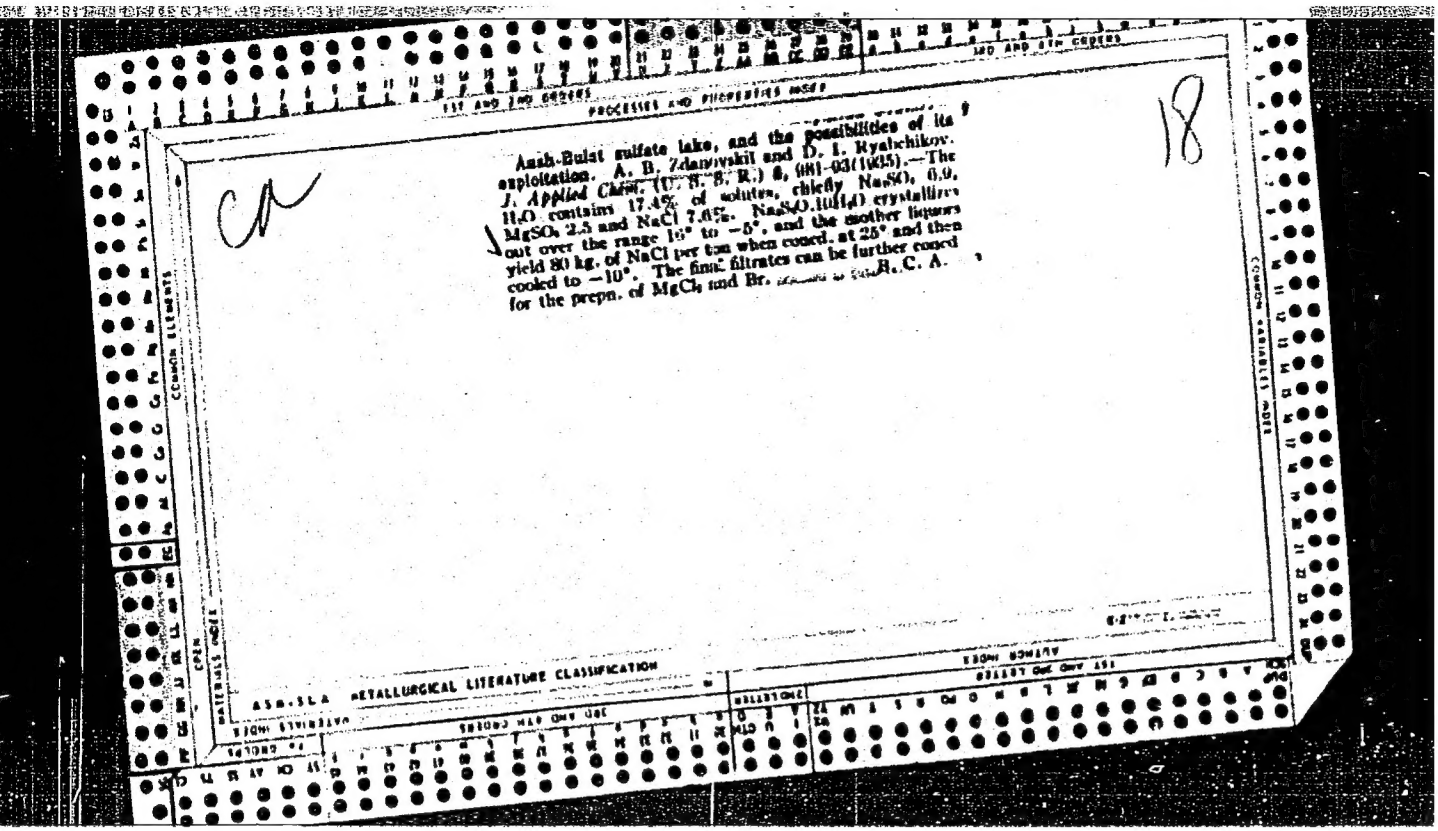
ZDANOVSKIY, A.A.

Twenty-four volt electric equipment of motor vehicles with a compression-ignition engine. Avt.prom. 27 no.12:28-29 D '61. (MIRA 15:1)

1. Nauchno-issledovatel'skiy eksperimental'nyy institut avtotraktornogo elektrooborudovaniya i priborov.
(Motor vehicles--Electric equipment)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Ca

18

Ansh-Bulat sulfate lake, and the possibilities of its exploitation. A. B. Zdanovskii and D. I. Ryabchikov. *J. Applied Chem.* (U. S. S. R.) 8, 981-93(1935).—The H_2O contains 17.4% of solutes, chiefly Na_2SO_4 6.9, $MgSO_4$ 2.5 and NaCl 7.6%. $Na_2SO_4 \cdot 10H_2O$ crystallizes out over the range 16° to −5°, and the mother liquors yield 80 kg. of NaCl per ton when concd. at 25° and then cooled to −10°. The final filtrates can be further concd for the prepn. of $MgCl_2$ and Br. [illegible] B. C. A.

COMMON ELEMENTS

COMMON VARIABLES INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

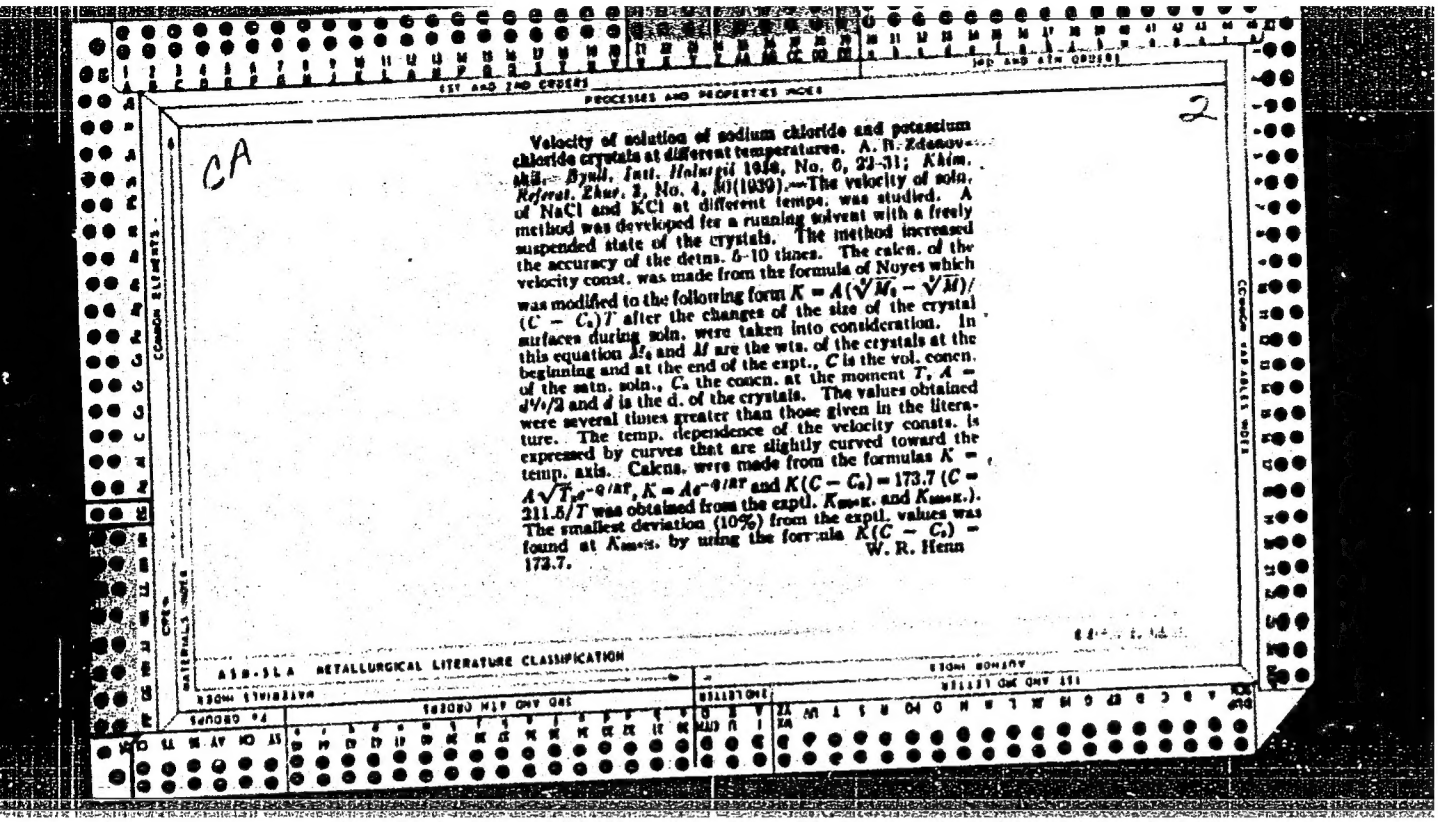
AUTHOR INDEX

1ST AND 2ND LETTER

3RD AND 4TH ORDERS

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



CA

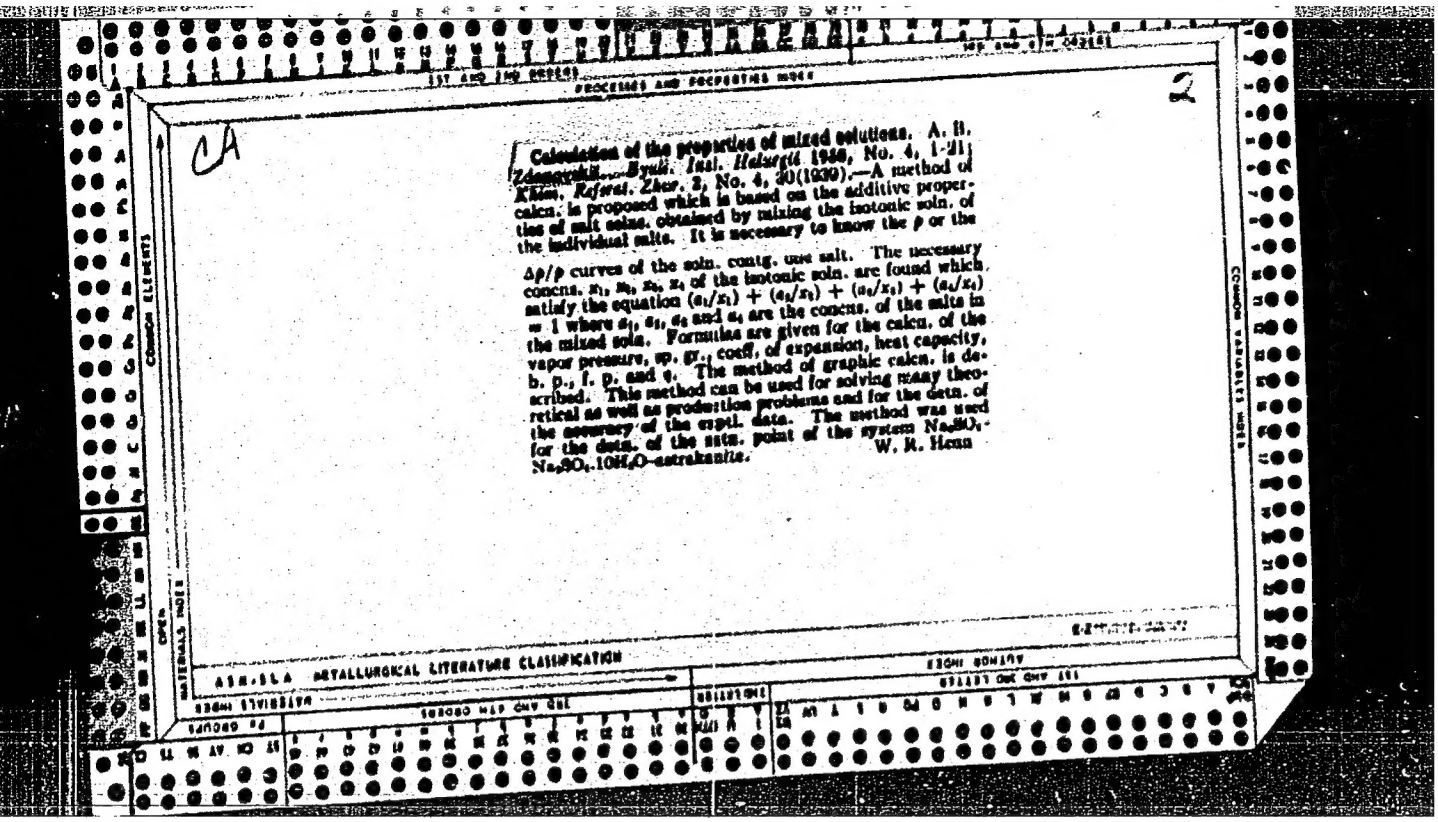
2

Velocity of solution of sodium chloride and potassium chloride crystals at different temperatures. A. B. Zdanovskii. *Bynll. Inst. Halurgii* 1938, No. 6, 23-31; *Khim. Referat. Zhur.* 3, No. 4, 80(1939).—The velocity of soln. of NaCl and KCl at different temps. was studied. A method was developed for a running solvent with a freely suspended state of the crystals. The method increased the accuracy of the detns. 5–10 times. The calcn. of the velocity const. was made from the formula of Noyes which was modified to the following form $K = A(\sqrt[3]{M_0} - \sqrt[3]{M})/(C - C_s)T$ after the changes of the size of the crystal surfaces during soln. were taken into consideration. In this equation M_0 and M are the wts. of the crystals at the beginning and at the end of the expt., C is the vol. concn. of the satn. soln., C_s the concn. at the moment T, $A = d^{4/3}/3$ and d is the d. of the crystals. The values obtained were several times greater than those given in the literature. The temp. dependence of the velocity consts. is expressed by curves that are slightly curved toward the temp. axis. Calcns. were made from the formulas $K = A\sqrt{T}e^{-Q/RT}$, $K = Ae^{-Q/RT}$ and $K(C - C_s) = 173.7$ ($C = 211.5/T$ was obtained from the expti. $K_{max.}$ and $K_{min.}$). The smallest deviation (10%) from the expti. values was found at $K_{max.}$ by using the formula $K(C - C_s) = 173.7$.

W. R. Henn

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

2

CA

Calculation of the properties of mixed solutions. A. B. Zdanovskii. *Byuli. Inst. Halurgii* 1938, No. 4, 1-21; *Khim. Referat. Zhur.* 2, No. 4, 30(1939).—A method of calcn. is proposed which is based on the additive properties of salt solns. obtained by mixing the isotonic soln. of the individual salts. It is necessary to know the p or the $\Delta p/p$ curves of the soln. contg. one salt. The necessary concns. x_1, x_2, x_3, x_4 of the isotonic soln. are found which satisfy the equation $(a_1/x_1) + (a_2/x_2) + (a_3/x_3) + (a_4/x_4) = 1$ where a_1, a_2, a_3 and a_4 are the concns. of the salts in the mixed soln. Formulas are given for the calcn. of the vapor pressure, sp. gr., coeff. of expansion, heat capacity, b. p., f. p. and η. The method of graphic calcn. is described. This method can be used for solving many theoretical as well as production problems and for the detn. of the accuracy of the exptl. data. The method was used for the detn. of the satn. point of the system Na_2SO_4-$Na_2SO_4.10H_2O$-astrakanite.

W. R. Henn

COMMON ELEMENTS

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

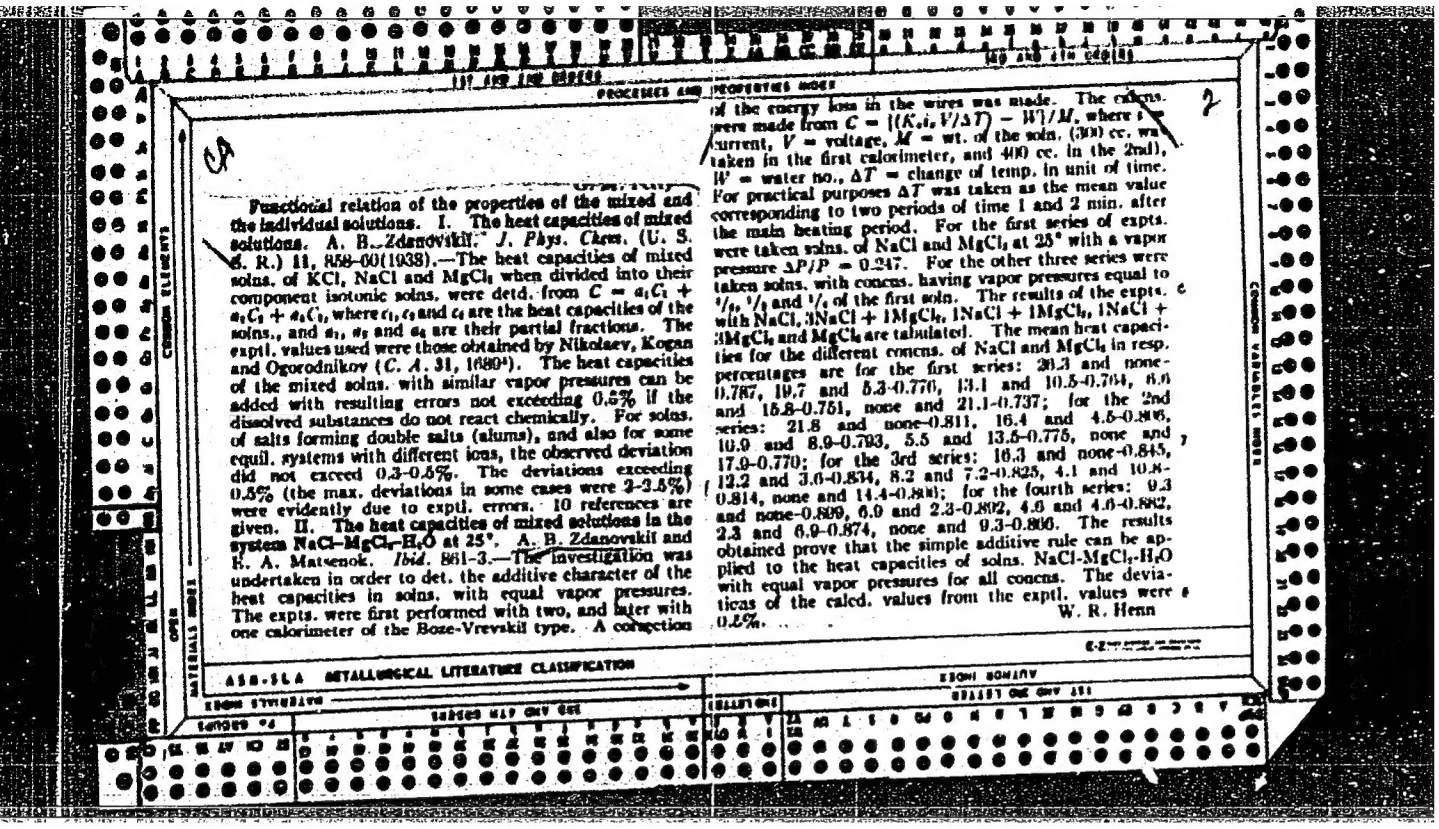
3RD AND 4TH ORDERS

AUTHOR INDEX

1ST AND 2ND LETTERS

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

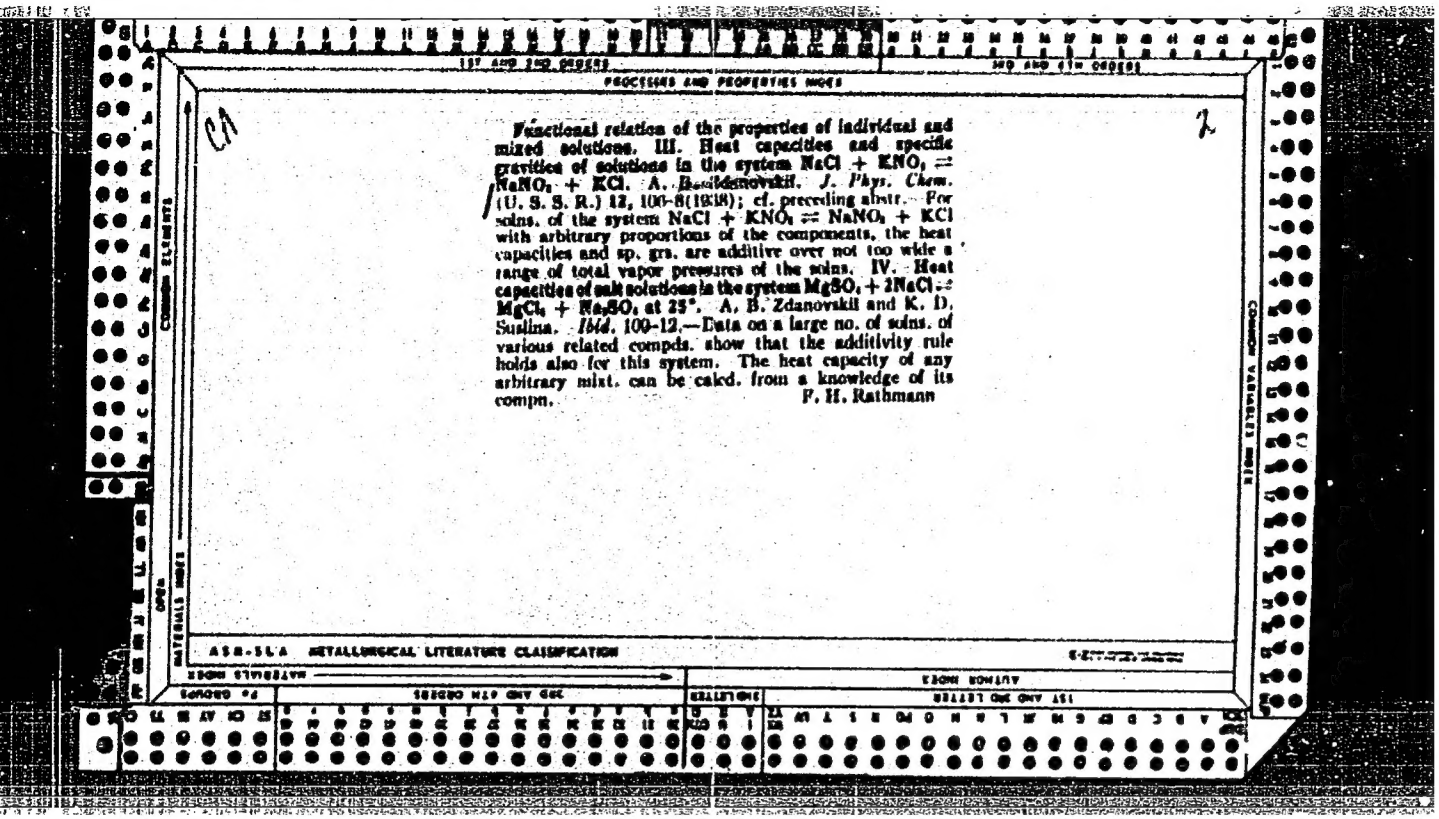


Functional relation of the properties of the mixed and the individual solutions. I. The heat capacities of mixed solutions. A. B. Zdanovskii. *J. Phys. Chem.* (U. S. S. R.) 11, 858–60(1938).—The heat capacities of mixed solns. of KCl, NaCl and $MgCl_2$ when divided into their component isotonic solns. were detd. from $C = a_1c_1 + a_2c_2 + a_3c_3$, where c_1, c_2 and c_3 are the heat capacities of the solns., and a_1, a_2 and a_3 are their partial fractions. The exptl. values used were those obtained by Nikolaev, Kogan and Ogorodnikov (*C. A.* 31, 1680⁴). The heat capacities of the mixed solns. with similar vapor pressures can be added with resulting errors not exceeding 0.5% if the dissolved substances do not react chemically. For solns. of salts forming double salts (alums), and also for some equil. systems with different ions, the observed deviation did not exceed 0.3–0.5%. The deviations exceeding 0.5% (the max. deviations in some cases were 2–3.5%) were evidently due to exptl. errors. 10 references are given. II. The heat capacities of mixed solutions in the system NaCl–$MgCl_2$–H_2O at 25°. A. B. Zdanovskii and E. A. Matsenok. *Ibid.* 861–3.—The investigation was undertaken in order to det. the additive character of the heat capacities in solns. with equal vapor pressures. The expts. were first performed with two, and later with one calorimeter of the Boze-Vrevskii type. A correction of the energy loss in the wires was made. The calcns. were made from $C = [(K.i.V/\Delta T) - W]/M$, where i = current, V = voltage, M = wt. of the soln. (300 cc. was taken in the first calorimeter, and 400 cc. in the 2nd), W = water no., ΔT = change of temp. in unit of time. For practical purposes ΔT was taken as the mean value corresponding to two periods of time 1 and 2 min. after the main heating period. For the first series of expts. were taken solns. of NaCl and $MgCl_2$ at 25° with a vapor pressure $\Delta P/P = 0.247$. For the other three series were taken solns. with concns. having vapor pressures equal to $^1/_2$, $^1/_3$ and $^1/_4$ of the first soln. The results of the expts. with NaCl, 3NaCl + 1$MgCl_2$, 1NaCl + 1$MgCl_2$, 1NaCl + 3$MgCl_2$ and $MgCl_2$ are tabulated. The mean heat capacities for the different concns. of NaCl and $MgCl_2$ in resp. percentages are for the first series: 20.3 and none–0.787, 19.7 and 5.3–0.770, 13.1 and 10.5–0.764, 8.6 and 15.8–0.751, none and 21.1–0.737; for the 2nd series: 21.8 and none–0.811, 16.4 and 4.5–0.806, 10.9 and 8.9–0.793, 5.5 and 13.5–0.775, none and 17.9–0.770; for the 3rd series: 16.3 and none–0.845, 12.2 and 3.6–0.834, 8.2 and 7.2–0.825, 4.1 and 10.8–0.814, none and 14.4–0.808; for the fourth series: 9.3 and none–0.899, 6.9 and 2.3–0.892, 4.6 and 4.6–0.882, 2.3 and 6.9–0.874, none and 9.3–0.866. The results obtained prove that the simple additive rule can be applied to the heat capacities of solns. NaCl-$MgCl_2$-H_2O with equal vapor pressures for all concns. The deviations of the calcd. values from the exptl. values were 0.2%.

W. R. Henn

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



PROCESSES AND PROPERTIES INDEX

C1

2

Functional relation of the properties of individual and mixed solutions. III. Heat capacities and specific gravities of solutions in the system NaCl + KNO_3 ⇌ $NaNO_3$ + KCl. A. Bezdenovskii. *J. Phys. Chem.* (U. S. S. R.) 12, 100-8(1938); cf. preceding abstr.—For solns. of the system NaCl + KNO_3 ⇌ $NaNO_3$ + KCl with arbitrary proportions of the components, the heat capacities and sp. grs. are additive over not too wide a range of total vapor pressures of the solns. **IV. Heat capacities of salt solutions in the system $MgSO_4$ + 2NaCl ⇌ $MgCl_2$ + Na_2SO_4 at 25°.** A. B. Zdanovskii and K. D. Suslina. *Ibid.* 109-12.—Data on a large no. of solns. of various related compds. show that the additivity rule holds also for this system. The heat capacity of any arbitrary mixt. can be calcd. from a knowledge of its compn.

F. H. Rathmann

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

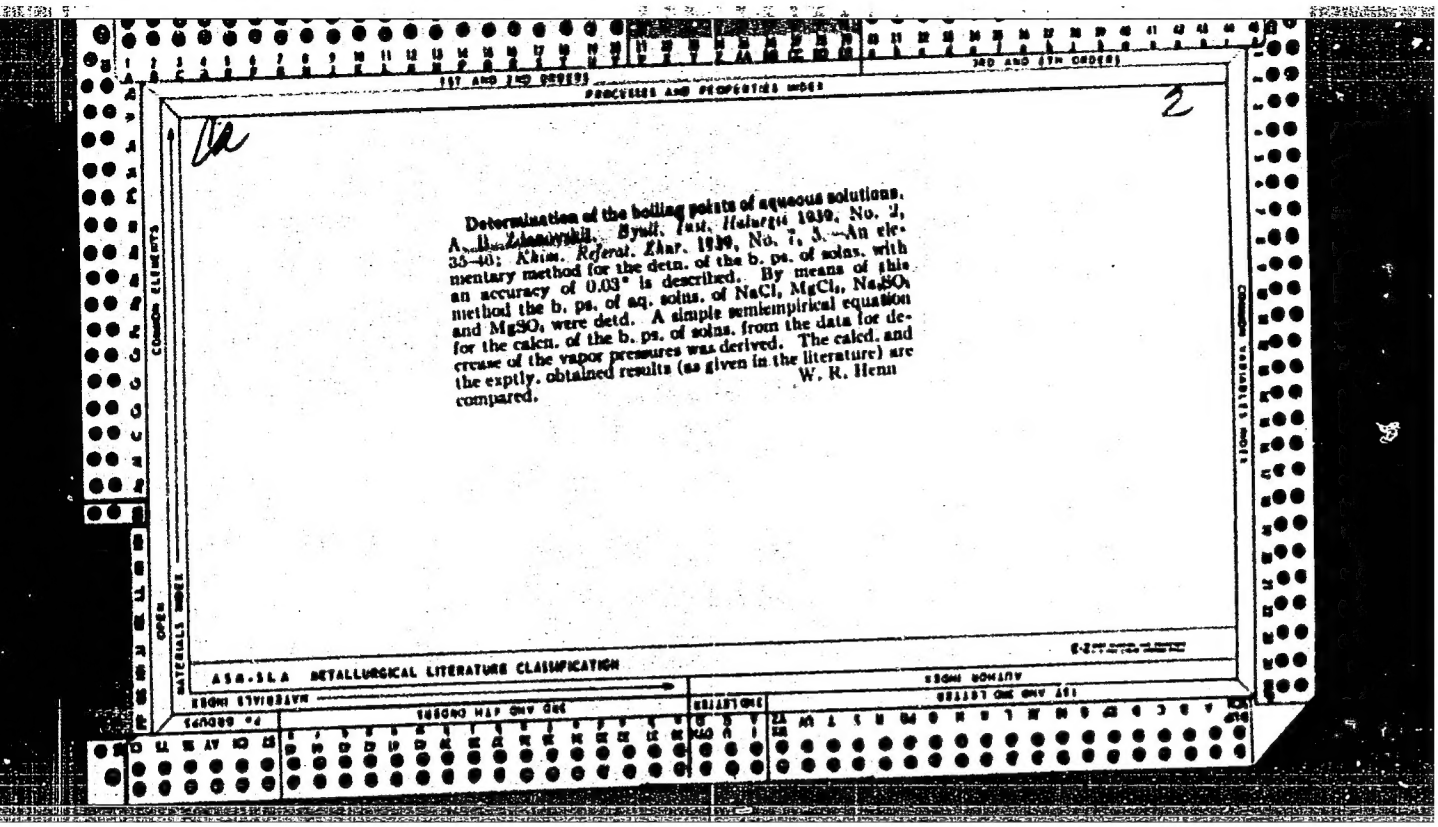
"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

2



Determination of the boiling points of aqueous solutions. A. B. Zdanovskii. *Byull. Inst. Halurgii* 1939, No. 2, 35-40; *Khim. Referat. Zhur.* 1939, No. 7, 5.—An elementary method for the detn. of the b. ps. of solns. with an accuracy of 0.03° is described. By means of this method the b. ps. of aq. solns. of NaCl, $MgCl_2$, Na_2SO_4 and $MgSO_4$ were detd. A simple semiempirical equation for the calcn. of the b. ps. of solns. from the data for decrease of the vapor pressures was derived. The calcd. and the exptly. obtained results (as given in the literature) are compared.

W. R. Henn

COMMON ELEMENTS

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

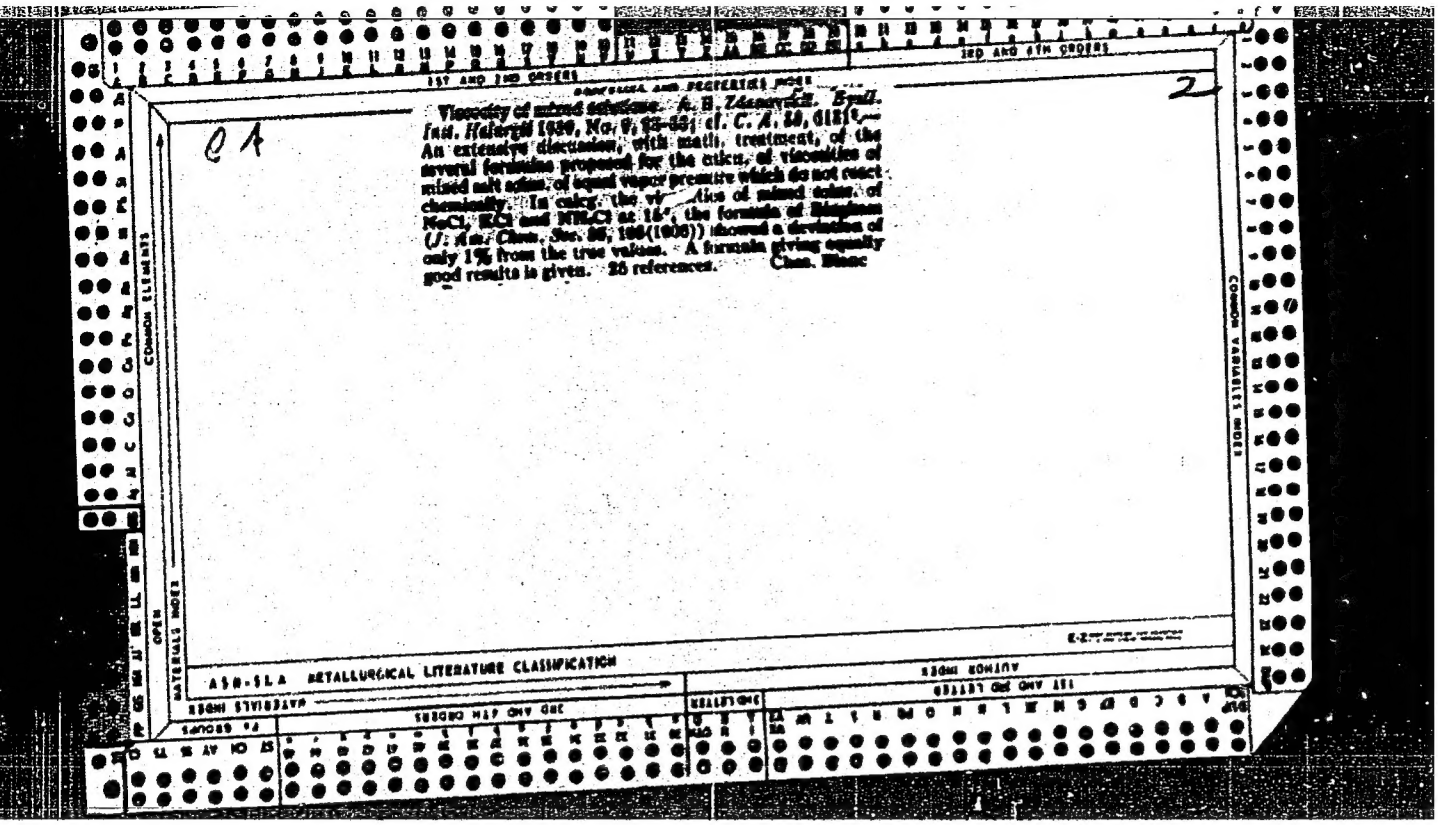
AUTHOR INDEX

1ST AND 2ND LETTER

3RD AND 4TH ORDERS

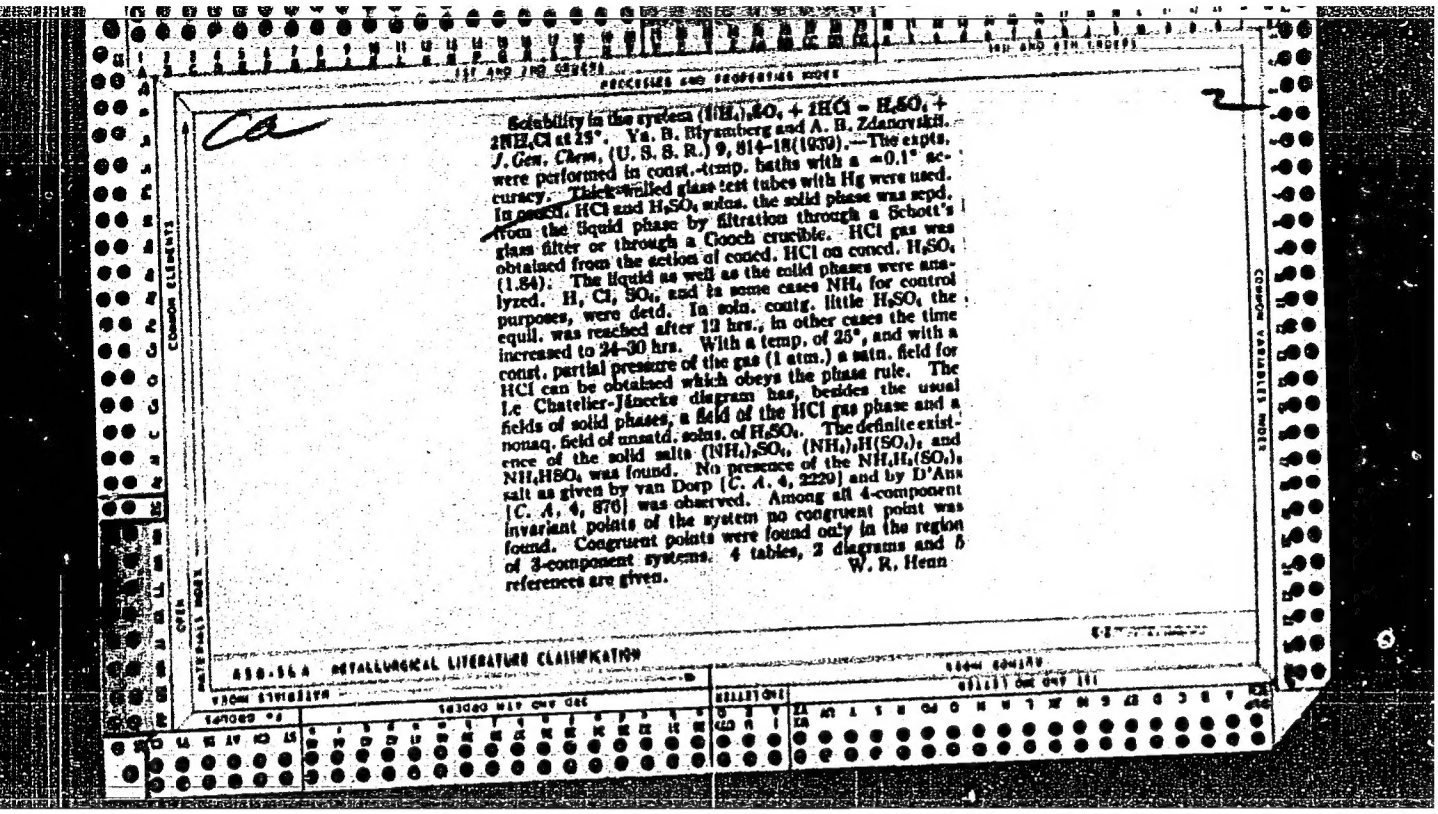
APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



Solubility in the system $(NH_4)_2SO_4 + 2HCl - H_2SO_4 + 2NH_4Cl$ at 25°. Ya. B. Blyumberg and A. B. Zdanovskii. *J. Gen. Chem.* (U. S. S. R.) 9, 814–18(1939).—The expts. were performed in const.-temp. baths with a ±0.1° accuracy. Thick-walled glass test tubes with Hg were used. In concd. HCl and H_2SO_4 solns. the solid phase was sepd. from the liquid phase by filtration through a Schott's glass filter or through a Gooch crucible. HCl gas was obtained from the action of concd. HCl on concd. H_2SO_4 (1.84). The liquid as well as the solid phases were analyzed. H, Cl, SO_4, and in some cases NH_4 for control purposes, were detd. In soln. contg. little H_2SO_4 the equil. was reached after 12 hrs., in other cases the time increased to 24–30 hrs. With a temp. of 25°, and with a const. partial pressure of the gas (1 atm.) a satn. field for HCl can be obtained which obeys the phase rule. The Le Chatelier-Jänecke diagram has, besides the usual fields of solid phases, a field of the HCl gas phase and a nonaq. field of unsatd. solns. of H_2SO_4. The definite existence of the solid salts $(NH_4)_2SO_4$, $(NH_4)_3H(SO_4)_2$ and NH_4HSO_4 was found. No presence of the $NH_4H_3(SO_4)_2$ salt as given by van Dorp [*C. A.* 4, 2229] and by D'Ans [*C. A.* 4, 876] was observed. Among all 4-component invariant points of the system no congruent point was found. Congruent points were found only in the region of 3-component systems. 4 tables, 2 diagrams and 5 references are given.

W. R. Henn

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.

USSR

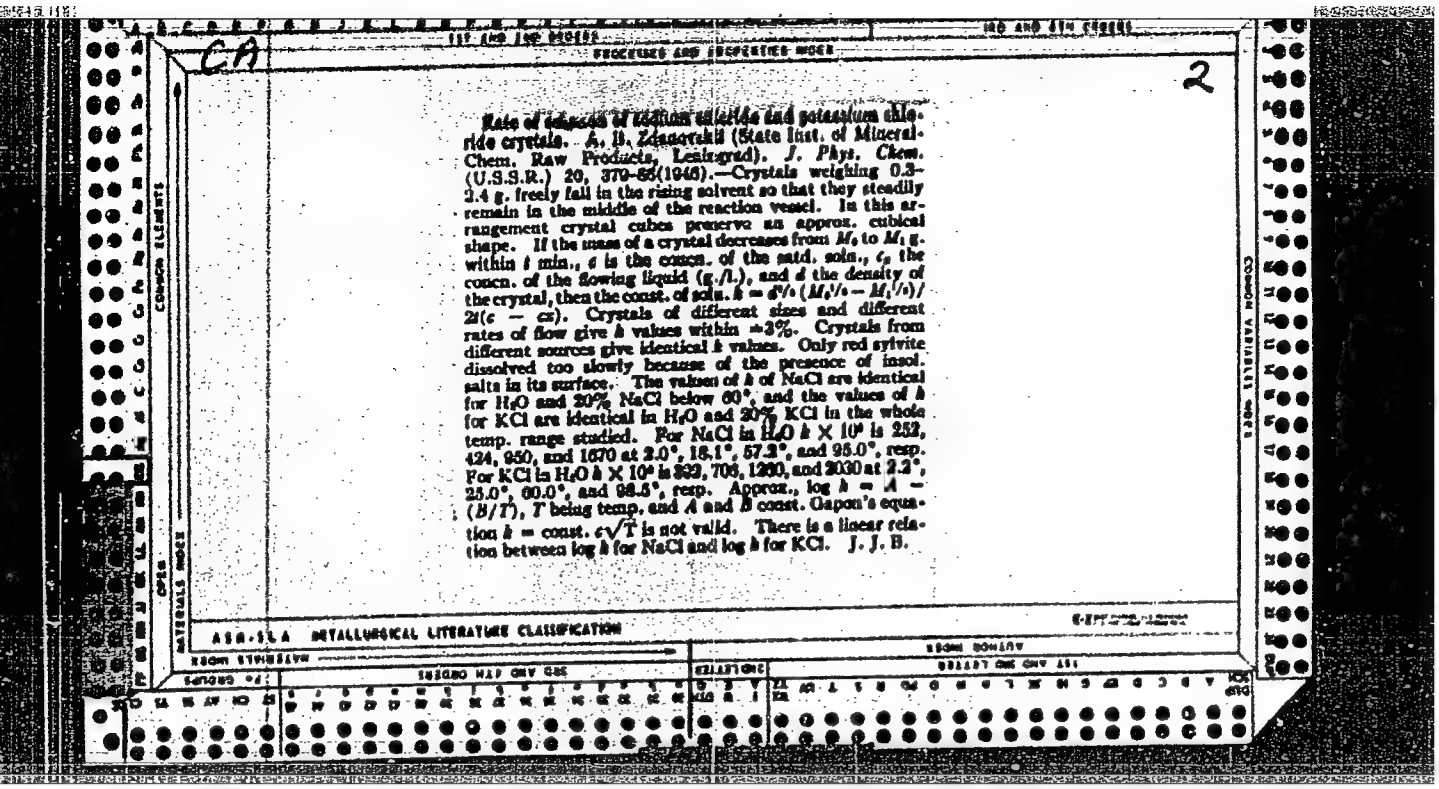
State Inst. Mining-Chem. Raw Materials, Leningrad Branch, (-1946-)

"The Velocity of Dissolution of NaCl and KCL Crystals."

Zhur. Fiz. Khim., No. 4, 1946.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



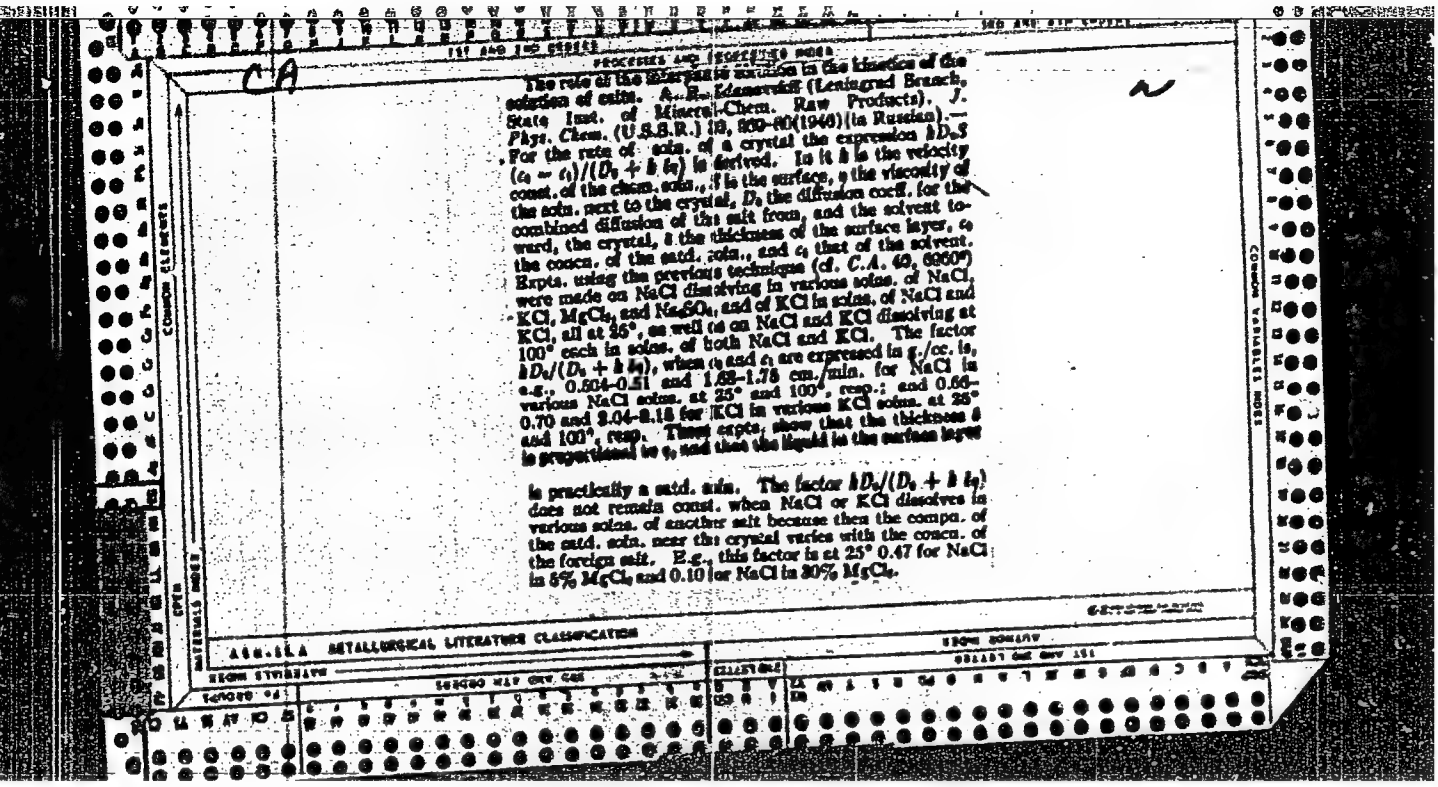
CA

2

Rate of solution of sodium chloride and potassium chloride crystals. A. D. Zdanovskiĭ (State Inst. of Mineral. Chem. Raw Products, Leningrad). *J. Phys. Chem.* (U.S.S.R.) 20, 379–86(1946).—Crystals weighing 0.3–2.4 g. freely fall in the rising solvent so that they steadily remain in the middle of the reaction vessel. In this arrangement crystal cubes preserve an approx. cubical shape. If the mass of a crystal decreases from M_0 to M_1 g. within t min., s is the concn. of the satd. soln., c_0 the concn. of the flowing liquid (g./l.), and d the density of the crystal, then the const. of soln. $k = d^{2/3}(M_0^{1/3} - M_1^{1/3})/2t(c - c_0)$. Crystals of different sizes and different rates of flow give k values within ±2%. Crystals from different sources give identical k values. Only red sylvite dissolved too slowly because of the presence of insol. salts in its surface. The values of k of NaCl are identical for H_2O and 20% NaCl below 60°, and the values of k for KCl are identical in H_2O and 20% KCl in the whole temp. range studied. For NaCl in H_2O $k \times 10^6$ is 252, 424, 950, and 1670 at 2.0°, 16.1°, 57.2°, and 95.0°, resp. For KCl in H_2O $k \times 10^6$ is 393, 706, 1200, and 2030 at 2.2°, 25.0°, 60.0°, and 98.5°, resp. Approx., $\log k = A - (B/T)$, T being temp. and A and B const. Capon's equation k = const. $c\sqrt{T}$ is not valid. There is a linear relation between $\log k$ for NaCl and $\log k$ for KCl. J. J. B.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

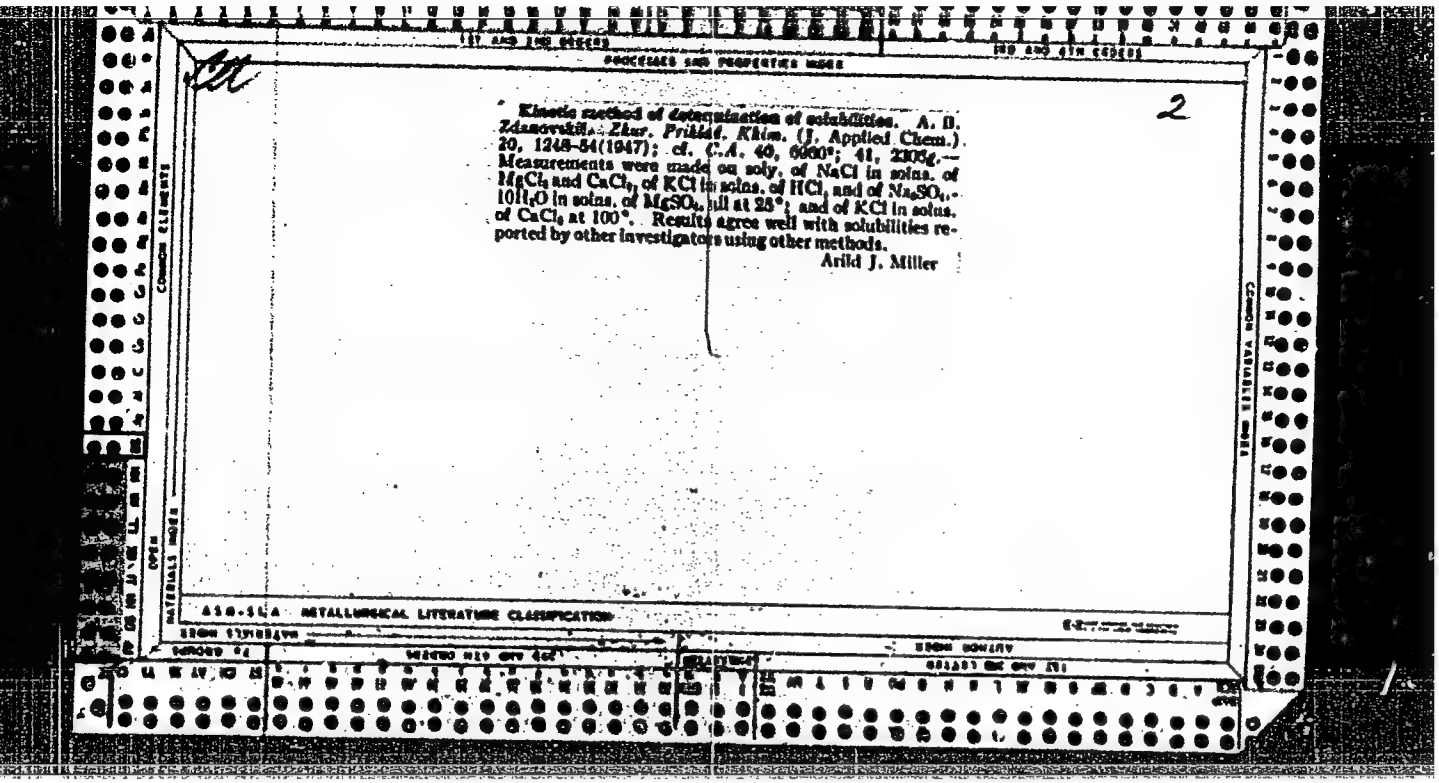


CA

The rate of the inorganic reaction in the kinetics of the solution of salts. A. E. Idzerovskii (Leningrad Branch, State Inst. of Mineral-Chem. Raw Products). *J. Phys. Chem.* (U.S.S.R.) 19, 269–80(1945)(in Russian).—For the rate of soln. of a crystal the expression $hD_0S(c_0 - c_1)/(D_0 + h\eta)$ is derived. In it h is the velocity const. of the chem. soln., S is the surface, η the viscosity of the soln. next to the crystal, D_0 the diffusion coeff. for the combined diffusion of the salt from, and the solvent toward, the crystal, δ the thickness of the surface layer, c_0 the concn. of the satd. soln., and c_1 that of the solvent. Expts. using the previous technique (*cf. C.A.* 40, 6960⁶) were made on NaCl dissolving in various solns. of NaCl, KCl, $MgCl_2$, and Na_2SO_4, and of KCl in solns. of NaCl and KCl, all at 25°, as well as on NaCl and KCl dissolving at 100° each in solns. of both NaCl and KCl. The factor $hD_0/(D_0 + h\eta)$, when c_0 and c_1 are expressed in g./cc. is, e.g., 0.504–0.51 and 1.62–1.75 cm./min. for NaCl in various NaCl solns. at 25° and 100°, resp.; and 0.66–0.70 and 2.04–2.18 for KCl in various KCl solns. at 25° and 100°, resp. These expts. show that the thickness δ is proportional to η, and that the liquid in the surface layer is practically a satd. soln. The factor $hD_0/(D_0 + h\eta)$ does not remain const. when NaCl or KCl dissolves in various solns. of another salt because then the compn. of the satd. soln. near the crystal varies with the concn. of the foreign salt. E.g., this factor is at 25° 0.47 for NaCl in 5% $MgCl_2$ and 0.10 for NaCl in 30% $MgCl_2$.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

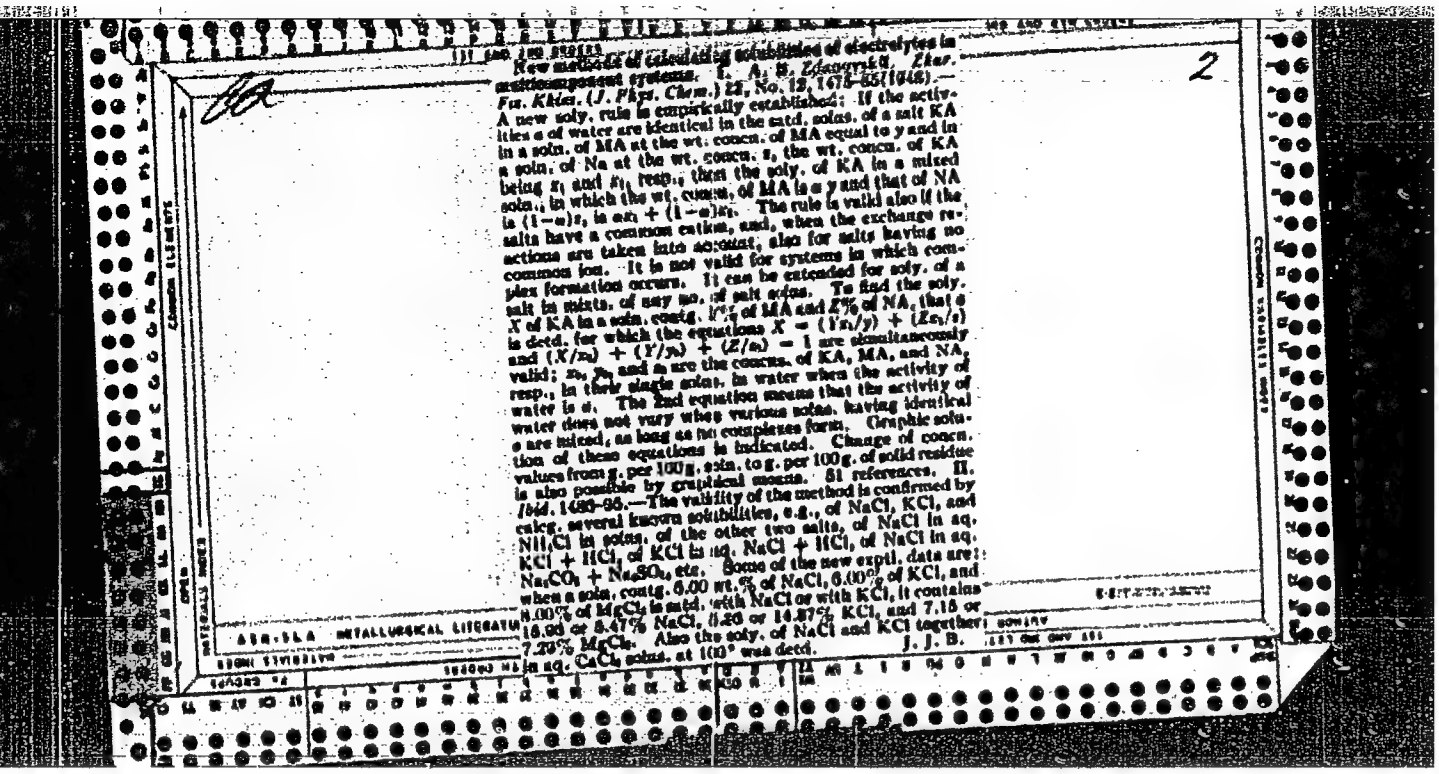


Kinetic method of determination of solubilities. A. D. Zdanovskii. *Zhur. Prikład. Khim.* (J. Applied Chem.) 20, 1248-54(1947); cf. *C.A.* 40, 6900°; 41, 2305g.—Measurements were made on solys. of NaCl in solns. of $MgCl_2$ and $CaCl_2$, of KCl in solns. of HCl, and of Na_2SO_4·$10H_2O$ in solns. of $MgSO_4$, all at 25°; and of KCl in solns. of $CaCl_2$ at 100°. Results agree well with solubilities reported by other investigators using other methods.

Arild J. Miller

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



New methods of calculating solubilities of electrolytes in multicomponent systems. I. A. B. Zdanovskii, *Zhur. Fiz. Khim. (J. Phys. Chem.)* 22, No. 12, 1475–85 (1948).—A new soly. rule is empirically established: If the activities a of water are identical in the satd. solns. of a salt KA in a soln. of MA at the wt. concn. of MA equal to y and in a soln. of Na at the wt. concn. z, the wt. concn. of KA being x_1 and x_2, resp., then the soly. of KA in a mixed soln., in which the wt. concn. of MA is a y and that of NA is $(1-a)z$, is $ax_1 + (1-a)x_2$. The rule is valid also if the salts have a common cation, and, when the exchange reactions are taken into account, also for salts having no common ion. It is not valid for systems in which complex formation occurs. It can be extended for soly. of a salt in mixts. of any no. of salt solns. To find the soly. X of KA in a soln. contg. Y% of MA and Z% of NA, that a is detd. for which the equations $X = (Yx_1/y) + (Zx_2/z)$ and $(X/x_0) + (Y/y_0) + (Z/z_0) = 1$ are simultaneously valid; x_0, y_0 and z_0 are the concns. of KA, MA, and NA, resp., in their single solns. in water when the activity of water is a. The 2nd equation means that the activity of water does not vary when various solns. having identical a are mixed, as long as no complexes form. Graphic solution of these equations is indicated. Change of concn. values from g. per 100 g. soln. to g. per 100 g. of solid residue is also possible by graphical means. 31 references. H. *Ibid.* 1480–96.—The validity of the method is confirmed by calcg. several known solubilities, e.g., of NaCl, KCl, and NH_4Cl in solns. of the other two salts, of NaCl in aq. KCl + HCl, of KCl in aq. NaCl + HCl, of NaCl in aq. $Na_2CO_3 + Na_2SO_4$, etc. Some of the new expti. data are: when a soln. contg. 6.00 wt.% of NaCl, 6.00% of KCl, and 8.00% of $MgCl_2$ is satd. with NaCl or with KCl, it contains 16.90 or 5.47% NaCl, 11.20 or 14.87% KCl, and 7.15 or 7.20% $MgCl_2$. Also the soly. of NaCl and KCl together in aq. $CaCl_2$ solns. at 100° was detd. J. J. B.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A. B.

Zdanovskiy, A. B. - "The kinetics of the dissolution of natural salts", (Report), Soobshch. o nauch. rabotakh chlenov Vsesoyuz. khim. o-va Im. Mendeleyeva, 1949, Issue 1, p. 19-21.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A. B.

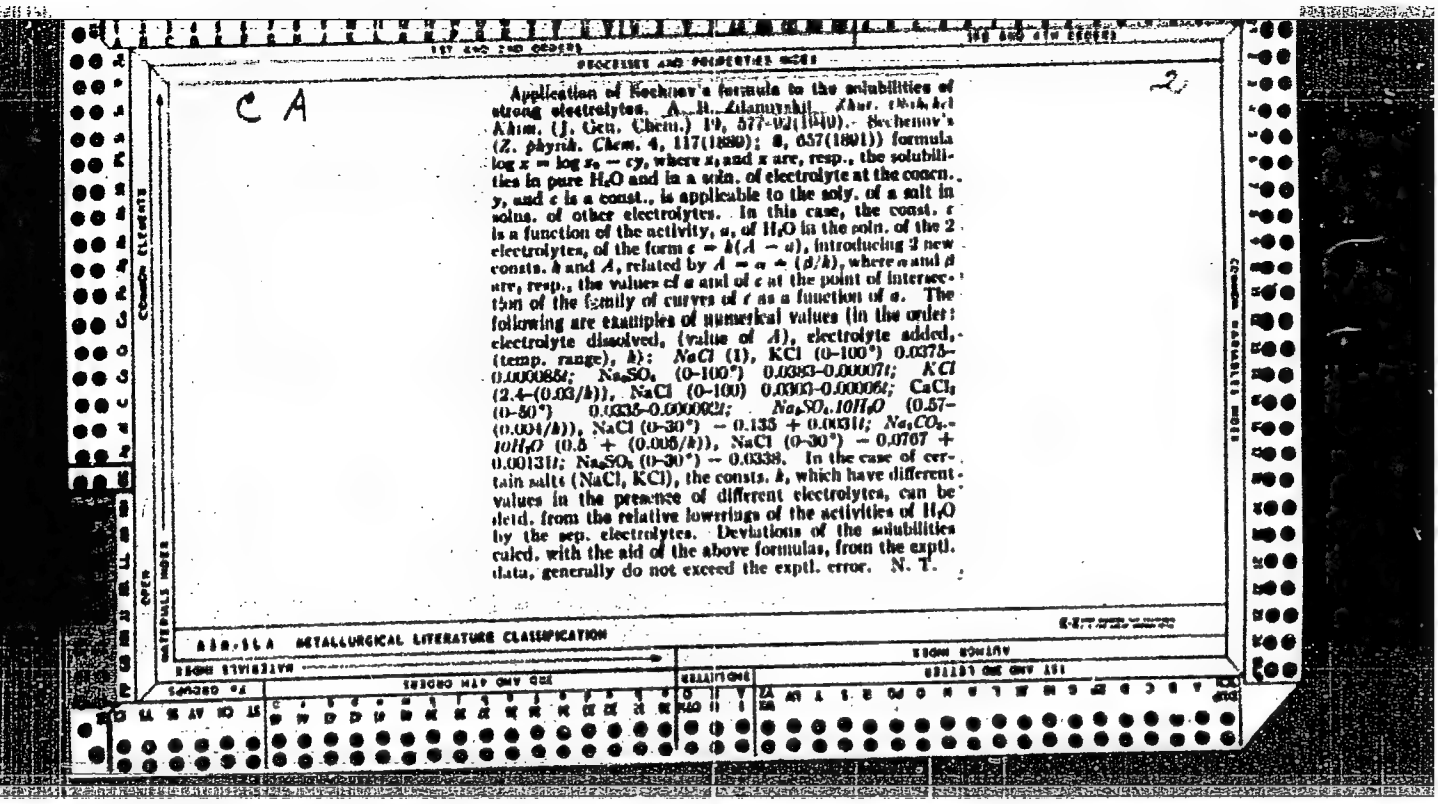
"The Application of Sechenov's Formula to the Solubilities of Strong Electrolytes,"

Zhur. Obshch. Khim., 19., #4, 1949.

Mbr., All-Union Sci.-Res. Inst. Metallurgy,-c1949-.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



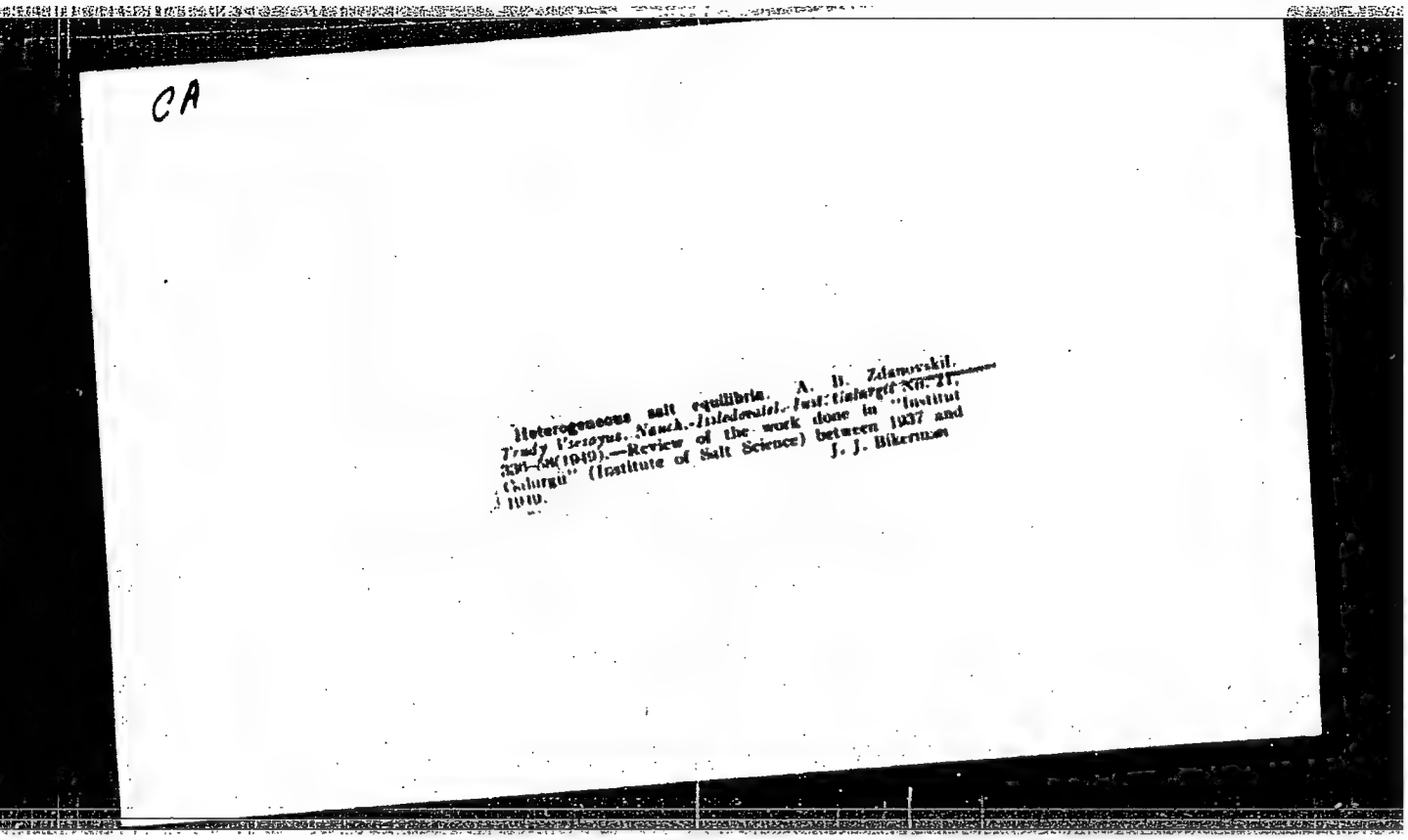
C A

2

Application of Bochinov's formula to the solubilities of strong electrolytes. A. B. Zdanovskii. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 10, 577-92(1940). Bochinov's (*Z. physik. Chem.* 4, 117(1889); 8, 657(1891)) formula $\log x = \log x_0 - cy$, where x_0 and x are, resp., the solubilities in pure H_2O and in a soln. of electrolyte at the concn. y, and c is a const., is applicable to the soly. of a salt in solns. of other electrolytes. In this case, the const. c is a function of the activity, a, of H_2O in the soln. of the 2 electrolytes, of the form $c = k(A - a)$, introducing 3 new consts. k and A, related by $A = \alpha = (\beta/k)$, where α and β are, resp., the values of a and of c at the point of intersection of the family of curves of c as a function of a. The following are examples of numerical values (in the order: electrolyte dissolved, (value of A), electrolyte added, (temp. range), k): *NaCl* (1), KCl (0–100°) 0.0375–0.000085*k*; Na_2SO_4 (0–100°) 0.0383–0.00007*k*; *KCl* (2.4–(0.03/*k*)), NaCl (0–100) 0.0303–0.00006*k*; $CaCl_2$ (0–80°) 0.0335–0.00002*k*; $Na_2SO_4.10H_2O$ (0.57–(0.004/*k*)), NaCl (0–30°) − 0.135 + 0.0031*k*; $Na_2CO_3.10H_2O$ (0.5 + (0.005/*k*)), NaCl (0–30°) − 0.0707 + 0.0013*k*; Na_2SO_4 (0–30°) − 0.0338. In the case of certain salts (NaCl, KCl), the consts. k, which have different values in the presence of different electrolytes, can be calcd. from the relative lowerings of the activities of H_2O by the sep. electrolytes. Deviations of the solubilities calcd. with the aid of the above formulas, from the exptl. data, generally do not exceed the exptl. error. N. T.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



CA

Heterogeneous salt equilibria. A. B. Zdanovskii. *Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. Galurgii* No. 21, 336-58(1949).—Review of the work done in "Institut Galurgii" (Institute of Salt Science) between 1937 and 1949. J. J. Bikerman

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.

"Manual on solubility" by V.B.Kogan, V.M.Fridman, V.V.Kafarov.
Reviewed by A.B.Zdanovskii. Zhur.neorg.khim. 8 no.4:1028-1030
Ap '63. (MIRA 16:3)
(Solubility) (Kogan, V.B.) (Fridman, V.M.) (Kafarov, V.V.)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

L 12702-63

ACCESSION NR: AP3002930 S/0076/63/037/006/1288/1291

AUTHOR: Zdanovskiy, A. B.; Imamutdinova, V. M.

TITLE: Mechanism of borate decomposition by sulfuric acid solution

SOURCE: Zhurnal fizicheskoy khmii, v. 37, no. 6, 1963, 1288-1291

TOPIC TAGS: borate decomposition, gypsum, borate, sulfuric acid, inoite, colemanite, hydroboracite, ulexite, solvent cycling method

ABSTRACT: The rate of dissolution of gypsum, B sub 2 O sub 3 and four naturally occurring borates, inoite, colemanite, hydroboracite, and ulexite, in H sub 2 SO sub 4 solutions at 25 and 50 degrees has been determined, using the solvent cycling method in a close system. Gypsum films are formed on the surfaces of the dissolving crystals, which thereby limits the process of decomposition of the calcium borates in H sub 2 SO sub 4. The dissolution rates with respect to calcium referred to its content in unit volume of the mineral give curves with maxima. Orig. art. has: 4 figures and 6 equations.

ASSOCIATION: Kazanskiy gosudarstvenny*y universitet (Kazan State University)

Card 1/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A. B.

32538. Kinetika Protsessov isparenlya pastvorov. rastvoreniya i kristallizatsii soley. Trudy. Vsesoyuz. nauch.-issled. in-ta galurgii, vyp. 21, 1949, s. 371-96.-- Bibliogr: 9 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

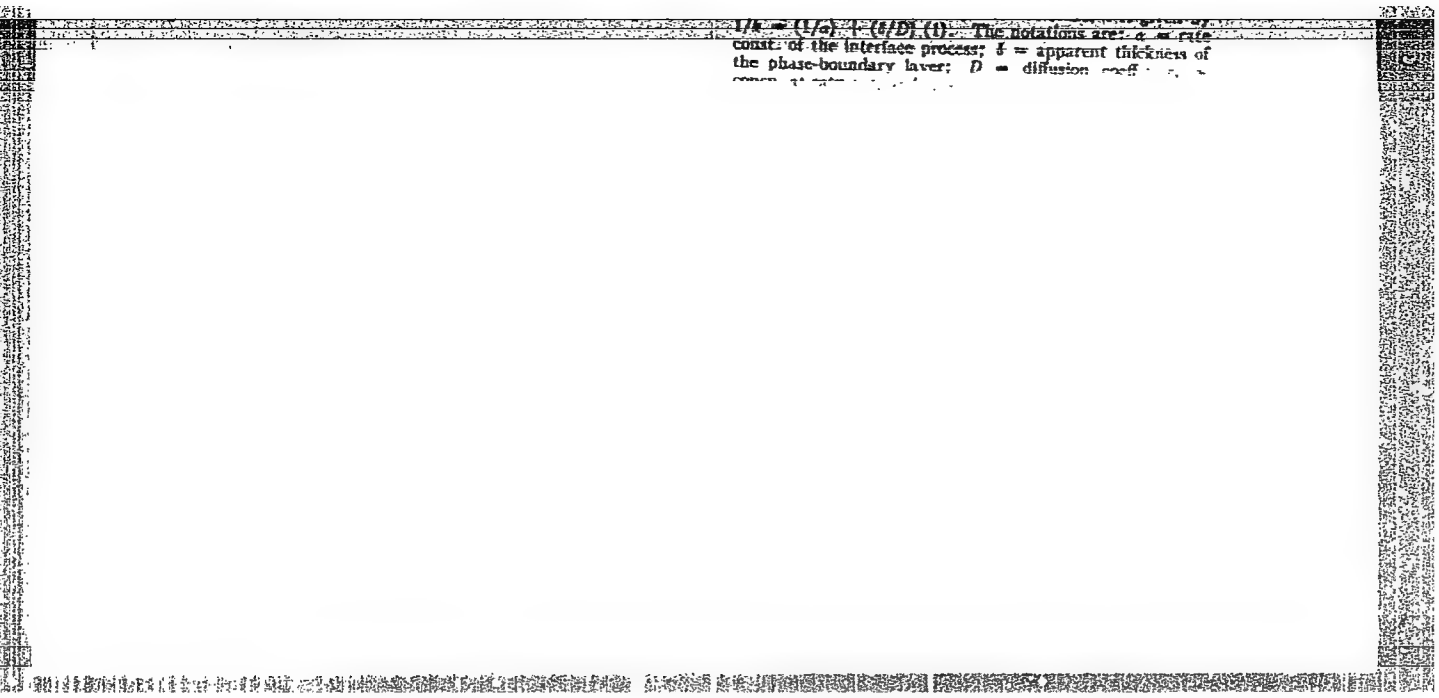
"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; LYAKHOVSKAYA, Ye.I.; SHEYMOVICH, R.E.; BUKSHTEYN, V.M., redaktor; VALYASHKO, M.G., redaktor; PEL'SH, A.D., redaktor.

[Handbook of experimental data on the solubility of multicomponent water-salt systems] Spravochnik eksperimental'nykh dannykh po rastvorimosti mnogokomponentnykh vodno-solevykh sistem. Vol.1 [Tri-component systems] Trekhkomponentnye sistemy. Leningrad, Gos. nauchno-tekhnicheskoe izd-vo khimicheskoi lit-ry, 1953. 670 p. (MLRA 7:2)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



$1/k = (1/\alpha) + (\delta/D)$ (1). The notations are: α = rate const. of the interface process; δ = apparent thickness of the phase-boundary layer; D = diffusion coeff.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY A B

USSR .

Hydrochemistry of Lake Ebeita A B Zdanovskii

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

VIKTOROV, M.M.; ZDANOVSKIY, A.B., redaktor; ERLIKH, Ye.Ya., tekhnicheskiy redaktor

[Graphic calculations in the technology of minerals] Graficheskie raschety v tekhnologii mineral'nykh veshchestv. Izd. 2-e, perer. i dop. Leningrad, Gos. nauchno-tekhn. izd-vo khimicheskoi lit-ry, 1954. 502 p. (MLRA 8:5)
(Mineralogy--Tables, etc.)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.

AKHUMOV, Ye.I., dotsent, kandidat khimicheskikh nauk; ROZEN, B.Ya., dotsent, kandidat khimicheskikh nauk.

Handbook of experimental data on the solubility of multicomponent water - salt systems." A.B.Zdanovskii, E.I.Liakhovskaia, R.E.Shleimovich, compilers; V.M.Bukshtein, M.G.Valiashko, A.D. Pel'sh, editors. Reviewed by E.I.Akhumov, B.IA.Rozen. Khim.prom. no.3:190 Ap-My '54. (MLRA 7:8)
(Solubility) (Salts) (Systems(Chemistry)) (Zdanovskiy, A.B.) (Liakhovskaia, E.I.) (Shleimovich, R.E.)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; VYAZOVOV, V.V., red.; KOTS, V.A., red.; ERLIKH, Ye.Ya., tekhn. red.

[Kinetics of solution of natural salts in forced convection conditions] Kinetika rastvoreniia prirodnykh solei v usloviiakh vynuzhdennoi konvektsii. Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry. 1956. 218 p. (Leningrad. Vsesoiuznyi nauchno-issledovatel'skii institut galurgii. Trudy no.33). (MLRA 10:9)
(Solution (Chemistry)) (Salts)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

USSR/Thermodynamics. Thermochemistry. Equilibria. Physico-Chemical Analysis. Phase Transition. B-8

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25128

Author : A.B. Zdanovskiy
Title : Kinetic Method of Solubility Determination.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 6, 1279-1283

Abstract : A method of determination of the solubility of a substance based on the study of the speed of its dissolution in solutions of various concentration is proposed. In case of substances, the dissolution speed (V) of which is limited by the speed of the diffusion process $V = KS(C - C_x)$, where K is a constant (dissolution speed factor), S is the surface of the dissolving substance, C is the solubility, and C_x is the solution concentration. It is possible to compute the value of C corresponding to V= 0, or to find it from the graph of the interdependence of V and C_x, by determining V for solutions of several different concentrations near the saturation. The proposed method was used for the determination of the solubility of NaCl in concentrated solutions of $MgCl_2$ and $CaCl_2$ at 25°; the results agreed well with bibliographical data. This method

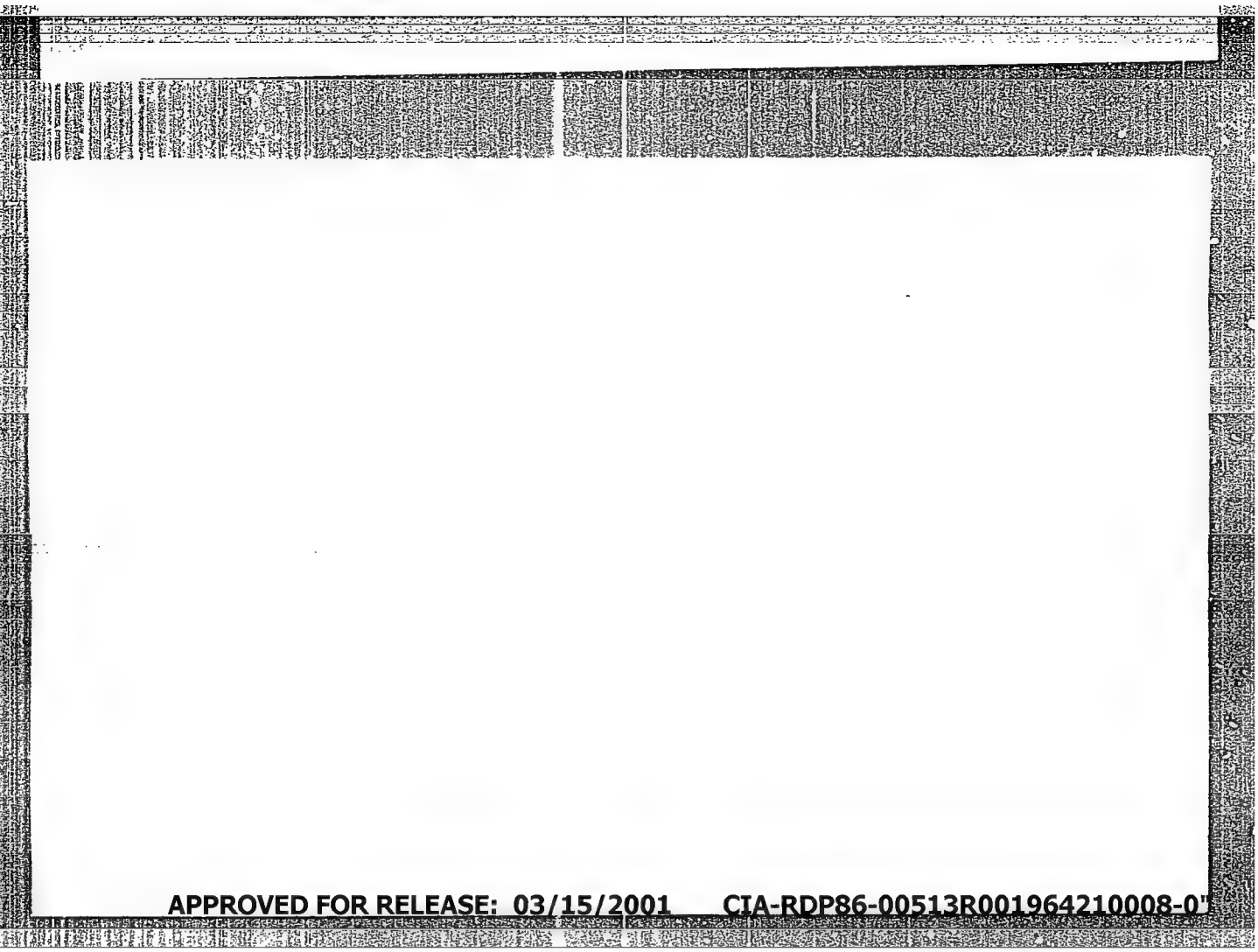
Card : 1/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.

Additivity of the viscosity logarithms of liquid mixtures.
Zhur.fiz.khim. 34 no.6:1380-1381 Je '60. (MIRA 13:7)

1. Kazanskiy gosudarstvennyy universitet.
(Viscosity) (Mixtures)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; DERYABINA, L.D.

Heats of mixing of electrolyte solutions. Part 2. Zhur. fiz. khim. 39 no.4:921-925 Ap '65. (MIRA 19:1)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina. Submitted Nov.22, 1963.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; IVANOVA, F.I.

Kinematic fluidity, a function of additive nature. Zhur. fiz. khim. 39 no.9:2275-2278 S '65. (MIRA 18:10)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; DERYABINA, L.D.

Heats of mixing of electrolyte solutions. Part 3. Zhur. fiz. khim. 39 no.6:1464-1468 Je '65. (MIRA 18:11)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina. Submitted June 18, 1964.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; SPIRIDONOV, F.P.

Solubility of α- and β-modifications of $CaSO_4 \cdot 0,5H_2O$ and $CaSO_4 \cdot 2H_2O$. Zhur.neorg.khim.11 no.1:20-24 Ja '66. (MIRA 19:1)

1. Submitted June 8, 1964.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; DERYABINA, L.D.

Heat of mixing of electrolyte solutions. Part 1. Zhur. fiz. khim. 39 no.3:678-683 Mr '65. (MIRA 18:7)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.

My inference concerning the viscosity functions of mixtures of ideal liquids. Zhur. fiz. khim. 36 no.3:657-658 Mr '62. (MIRA 17:8)

1. Kazanskiy universitet.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; IMAMUTDINOVA, V.M.

Mechanism of the solution of naturally occurring borates in hydrochloric acid solutions. Zhur. fiz. khim. 37 no.5:1095-1099 My '63. (MIRA 17:1)

1. Kazanskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; IMAMUTDINOVA, V.M.

Kinetics of solution of natural borates in hydrochloric acid solutions. Zhur. prikl. khim. 36 no.8:1675-1680 Ag '63. (MIRA 16:11)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; IMAMUTDINOVA, V.M.

Mechanism of borate decomposition by H_2SO_4 solutions. Zhur. fiz. khim. 37 no.6:1288-1291 Je '63. (MIRA 16:7)

1. Kazanskiy gosudarstvennyy universitet.
(Borates) (Sulfuric acid)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, A.B.; SOLOV'YEVA, Ye.F.; EZROKHI, L.L.; LYAKHOVSKAYA, Ye.I.; VYAZOVOVA, V.V., red.; PEL'SHA, A.D., red.; KOTS, V.A., red.; LEVIN, S.S., tekhn. red.; ERLIKH, Ye.Ya., tekhn. red.

[Manual of experimental data on the solubility of salt systems] Spravochnik eksperimental'nykh dannykh po rastvorimosti solevykh sistem. Leningrad, Gos. nauchno-tekhn.izd-vo khim. lit-ry. Vol.3. [Two-component systems; elements of the I group and their compounds] Dvukhkomponentnye sistemy; elementy I gruppy i ikh soedineniia. Sost. A.B.Zdanovskii i dr. Pod red. V.V. Vinzovova, A.D.Pel'sha, 1961. 2224 p. (MIRA 15:3)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii.
(Salts) (Systems (Chemistry)) (Solubility)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, Ignatii Adol'fovich, 1889-

Mass phenological observations in the work of regional study specialists; instructions and reference materials. Moskva, 1931. 48 p. (Biblioteka "Kraeveda-Massovika Moskovskoi oblasti.")

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

DROZDOV, S.G.; ZDANOVSKIY, I.I.; SHIRMAN, G.A.

Device for tissue culture in the air with 5% of carbon dioxide. Vop. virus. 9 no.6:723-725 N-D '64. (MIRA 18:11)

1. Institut poliomiyelita i virusnykh entsefalitov AMN SSSR, Moskva.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, M.

36648. Zdanovskiy, M. Oborudovaniye Na polnyy khod. (Ispol'zovaniye nevyyavlennykh Rezervov). Ill. S. vetsrumb. Tekhnika ----- Kolodezhi, 1949, No. 11, c. 12-13.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, M.

20647 Zdanovskiy, M. i Moratev, B. Bri Tady otlichnogo Kachestva. [Razvertyvaniye na mosk. prediriyatiyakh sots. sorevnovaniya za vysokoye Kachestvo produktsii po initsiative A. Chetkiku]. I 11. S. Vetsrumb. Tekhnika -- molodezhi, 1949, No. 5, s. 6-8

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

PANFILOV, G.; ZDANOVSKIY, S.

Experiment verified by life. Okhr. truda i sots. strakh. no.1:42-44 Jl '58. (MIRA 11:12)

1.Predsedatel' komissii okhrany truda Pervogo gosudarstvennogo podshipnikovogo zavoda (for Panfilov). 2.Nachal'nik otdela bezopasnosti Pervogo gosudarstvennogo podshipnikovogo zavoda (for Zdanovskiy).

(Industrial safety)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOVSKIY, S.F.

Mechanization facilitates the labor. Bezop.truda v pros. 2 no.3:31 Mr '58. (MIRA 11:3)

1. Nachal'nik otdela tekhniki bezopasnosti 1-go Gosudarstvennogo podshipnikovogo zavoda.
(Automatic control)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

NESTERENKO, M.Z.; ZDANOW, W.M.; ZUKOWSKI, A.M.; Tlum: dr.med. ADONAJLO, A.

Studies on the epidemiology of influenza A2. Przegl. epidem. 15 no.3:265-278 '61.

1. Instytut Wirosologii im. D.J.Iwanowskiego ANM ZSRR, Moskwa.
(INFLUENZA ASIAN epidemiol)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOW, W.M.; FADEEVA, L.L.

Experimental data and observations on children immunized with allantois tissue. Med. dosw. mikrob. 9 no.4:419-424 1957.

1. Z Instytutu Wirusologii im. Iwanowskiego A. M. N. ZSRR.
(MEASLES, immunology,
vaccine, passage in tissue culture & prep. of allantois tissue vaccine (Pol))

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, E.

Work involved in the preparation of a plan for the turnover of goods in 1955, Poradnik. p(ROLNIK SPOLDZIELCA, Warszawa, Vol. 7, no. 21, Nov. 1954.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041220 G/0030/64/006/001/0227/0234

AUTHOR: Zdanowicz, L.; Zdanowicz, W.

TITLE: Semiconducting properties of Cd sub (3 - x)Zn sub xAs sub 2 type solid solutions

SOURCE: Physica status solidi, v. 6, no. 1, 1964, 227-234

TOPIC TAGS: cadmium zinc arsenide, solid solution semiconductor, Hall effect, activation energy change, phase transition

ABSTRACT: As the compounds of arsenic with cadmium and zinc show interesting and completely different semiconducting properties, the electric properties of the three-component system Cd_3As_2-Zn_3As_2 in the semibinary range were examined. Synthesis of $Cd_{3-x}Zn_xAs_2$ was achieved by direct melting of the components or by melting definite quantities of Cd_3As_2 and Zn_3As_2. The arsenic used was of semiconductor purity and the zinc and cadmium were either distilled three times or distilled and purified by zone melting. The materials were melted in silica tubes covered inside with carbon to prevent adhesion

Card 1/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041220

of the material to the tube wall. The temperature of synthesis ranged from 900C to 1100C. At room temperature the samples were found to be semiconducting, being n-type for $0 \leq x \leq 1.35$ and p-type for $1.5 \leq x \leq 3$. The following relations were measured for these samples: 1) the temperature vs the resistivity of the samples ($0 \leq x \leq 3$); the resistivity vs the Zn_3As_2 concentration at T = 500K; the dependence of the Hall coefficient on 1000/T for n-type samples and for p-type samples; the concentration of current carriers in samples vs the Zn_3As_2 concentration (T = 100K); the temperature dependence of the Hall mobility of electrons and holes in the samples; the dependence of the band gap in samples ($0 \leq x \leq 3$) on the Zn_3As_2 concentration; the dependence of the lattice constants in the samples on the Zn_3As_2 concentration. A proposed phase system for $Cd_{3-x}Zn_xAs_2$ is presented. The transition from n- to p-type takes place at about 47 mole % Zn_3As_2 with a transition region of 2 - 3 mole % Zn_3As_2, an abrupt change in the activation energy being noted in this transition region. The concentration of current carriers varied from 2.5×10^{18} cm^{-1} (Cd_3As_2) to 6.2×10^{16} cm^{-1} ($Cd_{1.65}Zn_{1.35}As_2$) at T = 100K. The band gap (activation energy) increased linearly from

Card 2/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041220

0.14 ev (Cd_3As_2) to 0.26 ev (45 mole % Zn_3As_2). The results obtained show close correlation with the x-ray analysis of the system. It was concluded from the experimental data that the investigated solid solutions are of substitutional nature over the whole composition range. The authors thahked Prof. Dr. L. Sosnowski for discussions and to Doctor K. Pigon for his suggestions. Orig. art. has: 9 figures.

ASSOCIATION: Department of Physics, Institute of Technology, Wroclaw

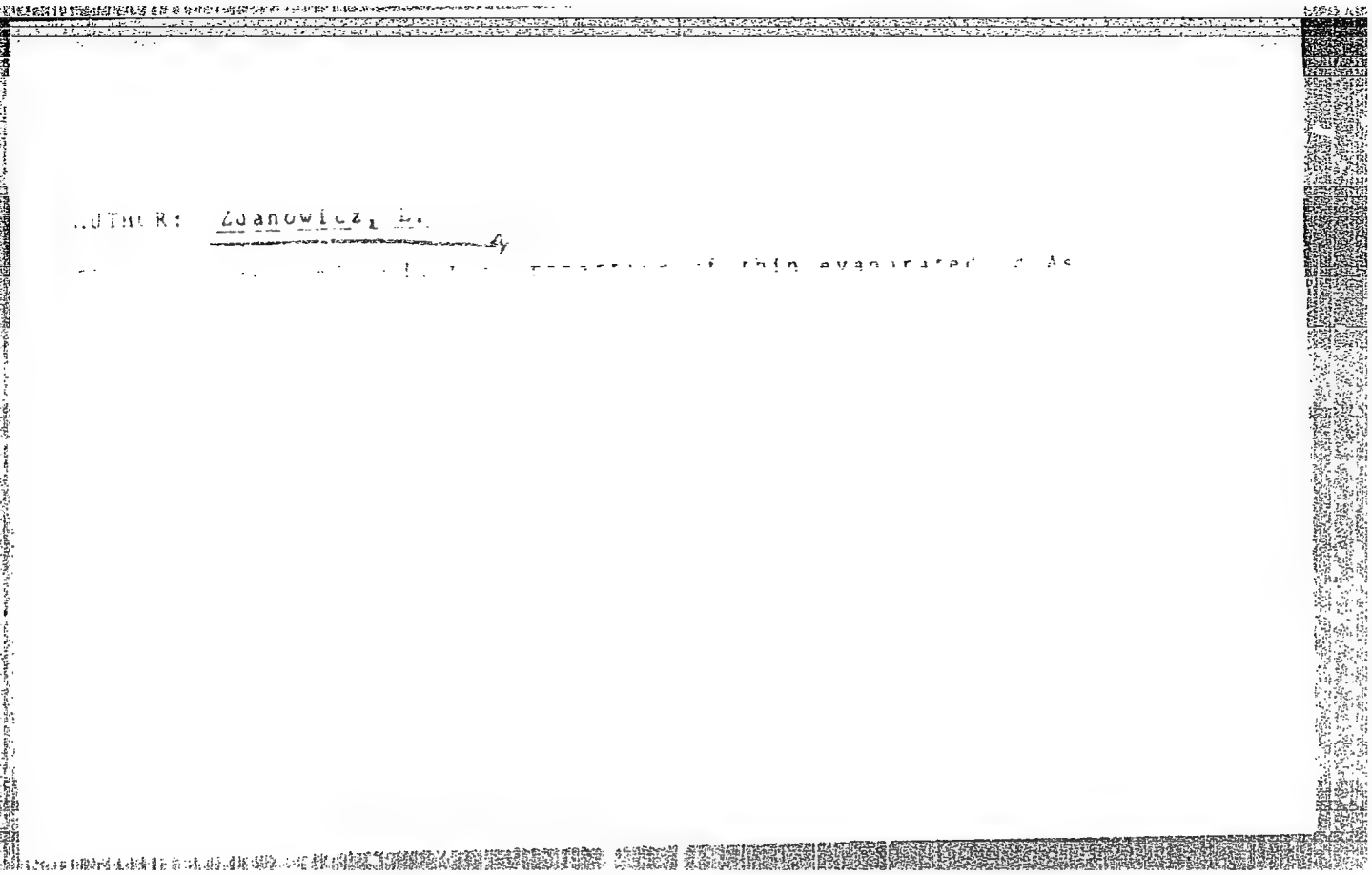
SUBMITTED: 28Apr64 DATE ACQ: ENCL: 00

SUB CODE: SS NO REF SOV: 001 OTHER: 014

Card 3/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

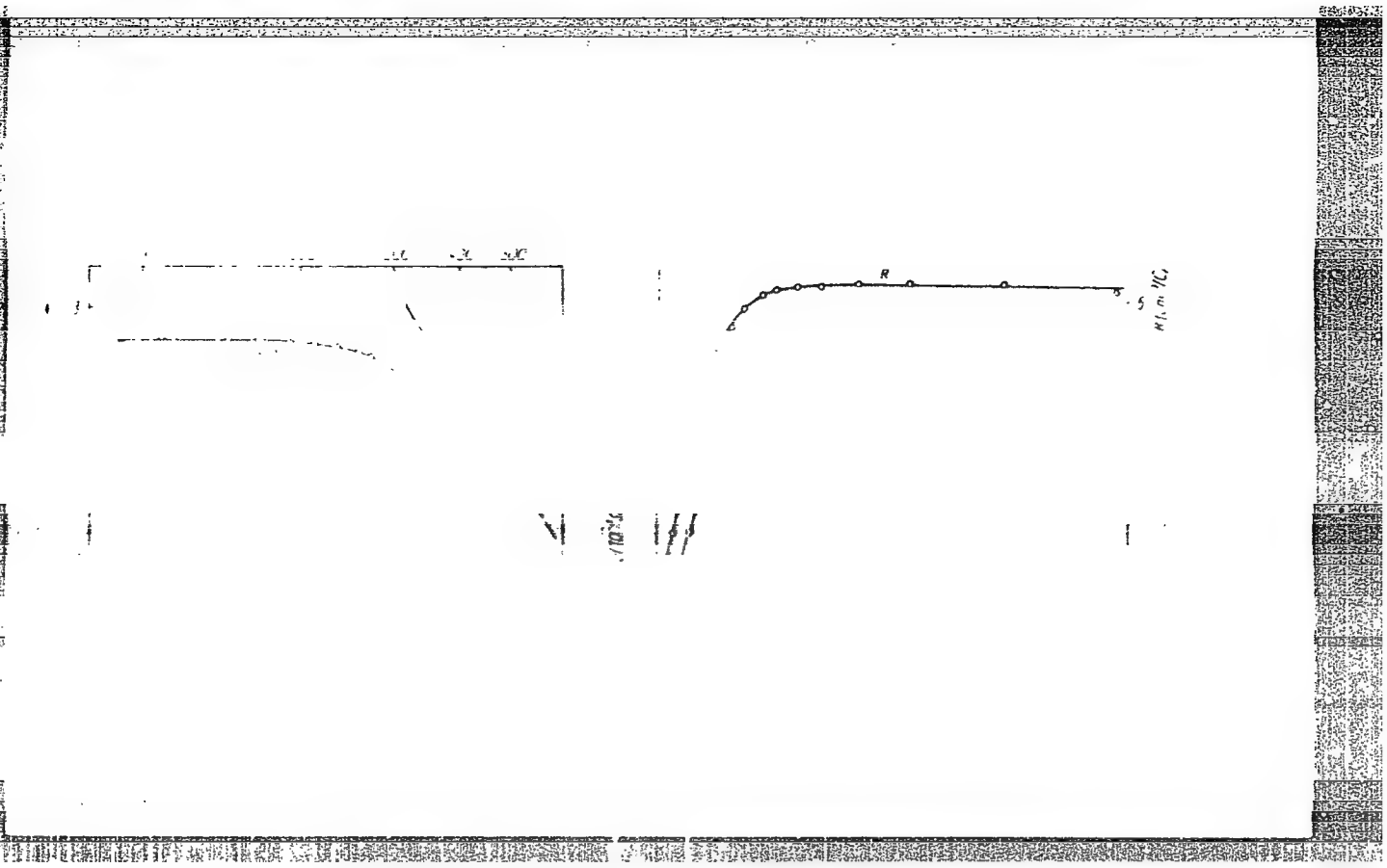
"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

linear up to about [illegible], ranging from [illegible]
[illegible] films depended on their thickness [illegible] films may be useful as

NO REF SOVT [illegible]

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, P.

Boron-carbon resistors. p. 215.
(TELE-RADIO. Vol. 2, no. 5, May 1957, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957. Uncl.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, W.; HENKIE, Z.

Some electric properties of Zn_3P_2. Bul chim PAN 12 no.10:729-734 '64.

1. Institute of Structural Research, Wroclaw, of the Polish Academy of Sciences. Submitted August 7, 1964.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041220 G/0030/64/006/001/0227/0234

AUTHOR: Zdanowicz, L.; Zdanowicz, W.

TITLE: Semiconducting properties of Cd sub (3 - x)Zn sub xAs sub 2 type solid solutions

SOURCE: Physica status solidi, v. 6, no. 1, 1964, 227-234

TOPIC TAGS: cadmium zinc arsenide, solid solution semiconductor, Hall effect, activation energy change, phase transition

ABSTRACT: As the compounds of arsenic with cadmium and zinc show interesting and completely different semiconducting properties, the electric properties of the three-component system Cd_3As_2-Zn_3As_2 in the semibinary range were examined. Synthesis of $Cd_{3-x}Zn_xAs_2$ was achieved by direct melting of the components or by melting definite quantities of Cd_3As_2 and Zn_3As_2. The arsenic used was of semiconductor purity and the zinc and cadmium were either distilled three times or distilled and purified by zone melting. The materials were melted in silica tubes covered inside with carbon to prevent adhesion

Card 1/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041220

of the material to the tube wall. The temperature of synthesis ranged from 900C to 1100C. At room temperature the samples were found to be semiconducting, being n-type for $0 \leq x \leq 1.35$ and p-type for $1.5 \leq x \leq 3$. The following relations were measured for these samples: 1) the temperature vs the resistivity of the samples ($0 \leq x \leq 3$); the resistivity vs the Zn_3As_2 concentration at T = 500K; the dependence of the Hall coefficient on 1000/T for n-type samples and for p-type samples; the concentration of current carriers in samples vs the Zn_3As_2 concentration (T = 100K); the temperature dependence of the Hall mobility of electrons and holes in the samples; the dependence of the band gap in samples ($0 \leq x \leq 3$) on the Zn_3As_2 concentration; the dependence of the lattice constants in the samples on the Zn_3As_2 concentration. A proposed phase system for $Cd_{3-x}Zn_xAs_2$ is presented. The transition from n- to p-type takes place at about 47 mole % Zn_3As_2 with a transition region of 2 - 3 mole % Zn_3As_2, an abrupt change in the activation energy being noted in this transition region. The concentration of current carriers varied from 2.5×10^{18} cm^{-1} (Cd_3As_2) to 6.2×10^{16} cm^{-1} ($Cd_{1.65}Zn_{1.35}As_2$) at T = 100K. The band gap (activation energy) increased linearly from

Card 2/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041220

0.14 ev (Cd_3As_2) to 0.26 ev (45 mole % Zn_3As_2). The results obtained show close correlation with the x-ray analysis of the system. It was concluded from the experimental data that the investigated solid solutions are of substitutional nature over the whole composition range. The authors thahked Prof. Dr. L. Sosnowski for discussions and to Doctor K. Pigon for his suggestions. Orig. art. has: 9 figures.

ASSOCIATION: Department of Physics, Institute of Technology, Wroclaw

SUBMITTED: 28Apr64 DATE ACQ: ENCL: 00

SUB CODE: SS NO REF SOV: 001 OTHER: 014

Card 3/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, W.; LUKASZEWICZ, K.; TRZEBIATOWSKI, W.

Crystal structure of the semiconducting system Cd_3As_2-Zn_3As_2.
Bul chim PAN 12 no. 3:169-176 '64.

1. Institute of Structural Research, Polish Academy of Sciences, Wroclaw. Presented by W.Trzebiatowski.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, W.; TRUMPOWSKI, B.

Thermoelectric properties of $Cd_{3-x}Zn_x As_2$ -type solid solutions.
Acta physica Pol 26 no.6:1205-1210 '64

1. Department of Physics of Wroclaw Technical University.
Submitted June 16, 1964.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041474 P/0045/64/025/005/0663/0673

AUTHOR: Zdanowicz, W. (Zhdanovich, Vitol'd)

TITLE: Magnetic reluctance of cadmium arsenide in a temperature range from 1.6 to 300K

SOURCE: Acta physica polonica, v. 25, no. 5, 1964, 663-673

TOPIC TAGS: Cd_3As_2, Cd_3As_2 galvanomagnetic property, Cd_3As_2 thermoelectric property, Cd_3As_2 optical property, Cd_3As_2 reluctance, Cd_3As_2 Hall effect

ABSTRACT: The Hall effect and the magnetic reluctance of an n-type Cd_3As_2 crystalline sample with an electron concentration $n = 2.5 \times 10^{18}$ cm^{-3} were investigated at temperatures of 1.6, 4.2, 78 and 300K and magnetic fields from about 1 to 26 koe. It was found that the classical theory of reluctance for strong magnetic fields is not applicable in the case of Cd_3As_2. Even at T = 1.6K and H = 26 koe ($\mu H \approx 13$), the reluctance $\Delta\rho/\rho_0$ does not show saturation as predicted by theory. The reluctance is proportional to H^2 only in weak magnetic

Card 1/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ACCESSION NR: AP4041474

fields ($\mu H < 1$). At T = 78K, this proportionality is not conserved either for transverse or longitudinal reluctance, which differ very little. At T = 4.2 K, both transverse and longitudinal reluctances are proportional to H. In strong magnetic fields ($\mu H > 1$) in the whole range of investigated fields and temperatures, the dependence of reluctance on temperature and the magnetic field can be expressed by an empirical formula $\Delta\rho/\rho_0 = (A\mu_H H)^c$, where A is the constant coefficient of transverse or longitudinal reluctance, c is the exponent of H depending on temperature, and μ_H is the Hall mobility. The geometric effect, which influences the coefficient c, manifests itself mostly in weak magnetic fields ($\mu H < 1$). In very strong fields ($\mu H \gg 1$) the geometric effect is insignificant. Orig. art. has: 7 figures, 1 table, and 5 formulas.

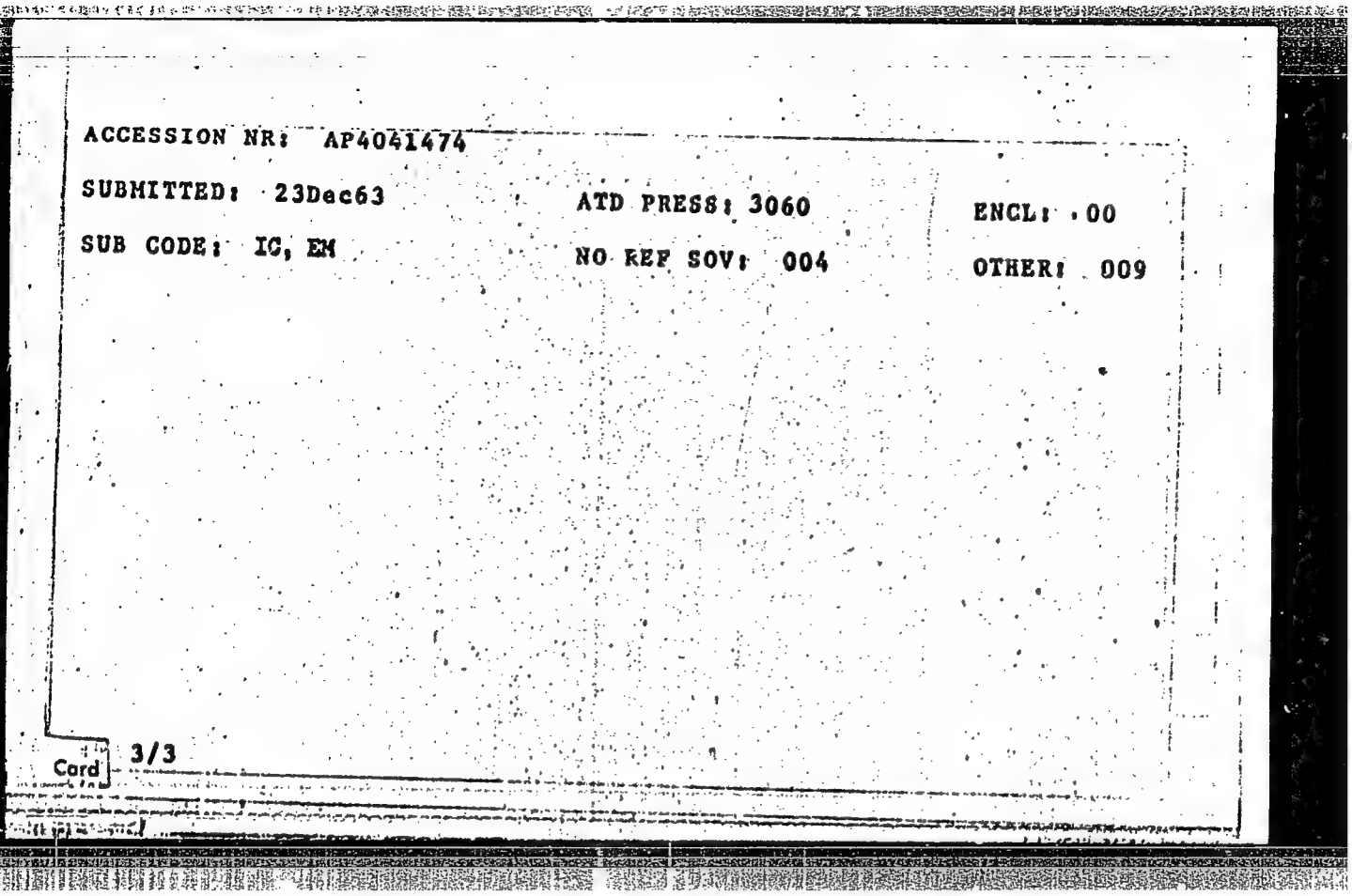
ASSOCIATION: Politechnika Wrocławska, Katedra Fizyki, Wrocław (Wroclaw Polytechnical Institute, Physics Faculty)

SUBMITTED: 23Dec63

Card 2/3

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



ACCESSION NR: AP4041474

SUBMITTED: 23Dec63 ATD PRESS: 3060 ENCL: 00

SUB CODE: IC, EM NO REF SOV: 004 OTHER: 009

Card 3/3

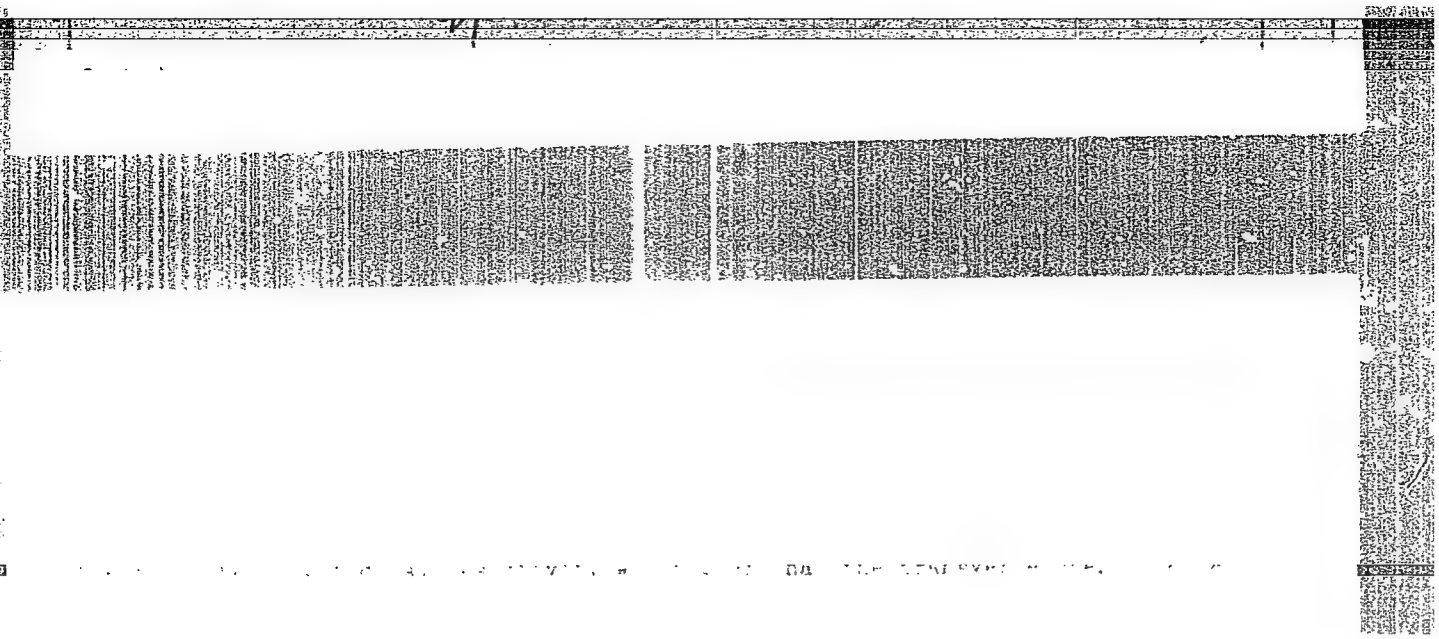
APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

helium temperatures. Measurements were made of the dependence of the Hall coeffi-

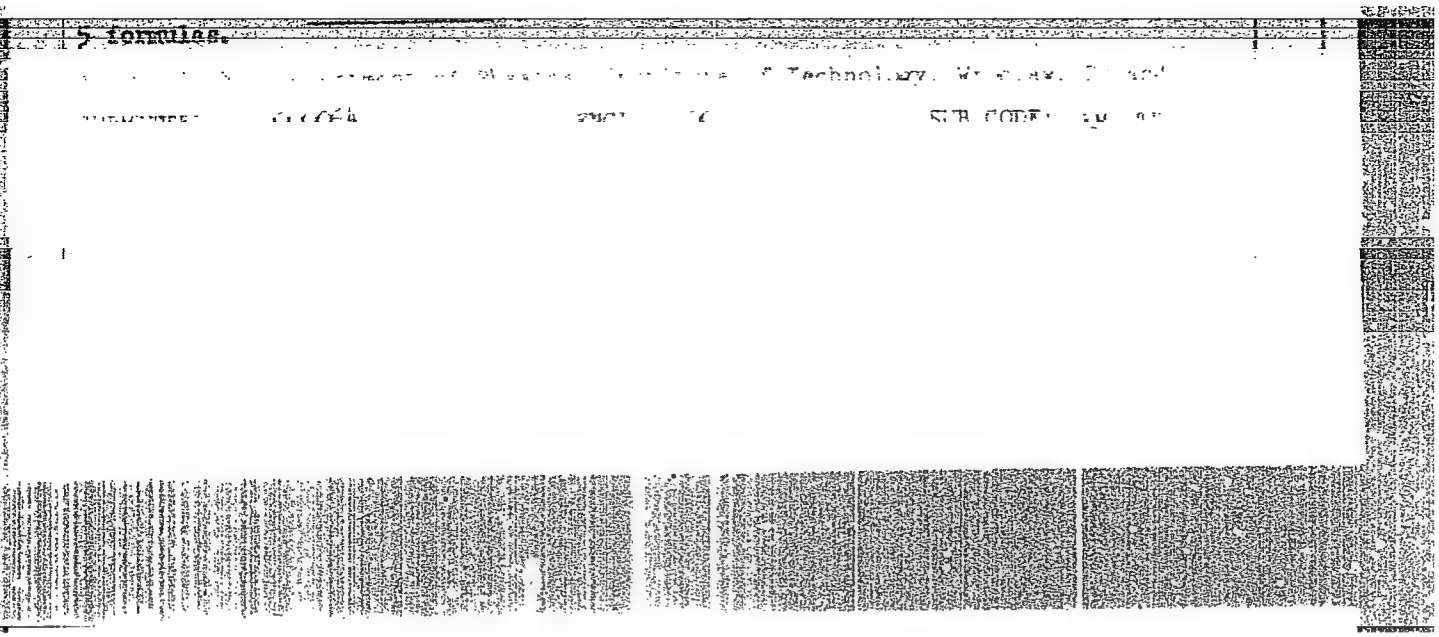
APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, W.

Distr: 4E2c

Purification of bismuth by zonal melting, and testing of its purity. Witold Zdanowicz (Politech. Wroclaw, Poland). *Zeszyty Nauk. Politech. Wroclaw.* No. 25, Chem. No. 5, 25–35 (1958) (English summary).—Bi heated to 600° at 10^{-4} mm. Hg for 24 hrs. was purified by 24-fold zonal melting at 2 cm./hr. of a sample 27 cm. long and 4 cm. wide. Ratios of elec. resistances at 90°K. and 0°C. were 0.370 and 0.383 in the directions perpendicular and parallel to the ternary axis. Pb and Ag were practically removed from 80% of sample vol. after 3-fold melting. J. Stecki.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

TRZEBIATOWSKI, W.; ZDANOWICZ, W.

Some electrical properties of cadmium arsenide — Cd_3As_2. Bul chim PAN 8 no.9:511-516 '60.

1. Institute of Physical Chemistry, Polish Academy of Sciences and Department of Inorganic Chemistry, Technical University, Wroclaw. Presented by W. Trzebiatowski.

(Electricity) (Cadmium) (Arsenides)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, Witold

Thermoelectric properties of cadmium arsenide — Cd_3As_2. Acta physica Pol 20 no.8:647-655 '61.

1. Institute of Physical Chemistry, Polish Academy of Sciences, Department of Physics, Institute of Technology, Wroclaw.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

L 11101-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) AT/WD

ACC NR: AP6027759 SOURCE CODE: GE/0030/66/016/002/K129/K131

61
6D
B

AUTHOR: Zdanowicz, W.; Wojakowski, A.

ORG: Institute of Structural Research, Polish Academy of Sciences, Wroclaw

TITLE: Semiconducting properties of CdP_4

SOURCE: Physica status solidi, v. 16, no. 2, 1966, K129-K131

TOPIC TAGS: semiconducting material, thermoelectric power, resistivity, Hall constant, CADMIUM COMPOUND, PHOSPHORUS, POLYCRYSTAL

ABSTRACT: The semiconducting properties of CdP_4 were investigated by means of electrical and optical measurements. CdP_4 was obtained by saturating CdP_2 or Cd_3P_2 with phosphorus vapors at a pressure of 6 to 10 atm. The synthesis was carried out in evacuated silica tubes containing CdP_2 or Cd_3P_2 at one end (the temperature of this zone was about 700C) while red phosphorus was placed in the other end (the temperature of this zone was about 500 to 540C). Thrice-distilled phosphorus and cadmium purified by zone melting were used. In this way CdP_4 was obtained in bulk polycrystalline form or as small, well-formed single crystals. The resistivity, Hall constant, and thermoelectric power for both poly- and monocrystalline CdP_4 specimens were measured

Card 1/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

L 41101-66

ACC NR: AP6027759

in the temperature range from 100 to 600K. CdP_4 was found to be a p-type semiconductor. Its resistivity for both poly- and monocrystalline specimens at 300K is of the order of 2 to 8 ohm·centimeter. The Hall constant for polycrystalline material at 300K is $R_H \approx 400$ cm^3/C ($p \approx 2 \times 10^{16}$ cm^{-3}). The thermoelectric power α of polycrystalline CdP_4 is about 600 μv/°C at 300K. The optical measurements were carried out at room temperature using large polycrystalline CdP_4 specimens 0.15 and 0.25 mm thick. The transmittance and reflectivity were measured from 0.5 to 3 μm. The maximum value of the absorption coefficient was 600 cm^{-1}, decreasing beyond the absorption edge to about 150 cm^{-1}. The width of the forbidden band $\Delta E_{opt} \approx 1.0$ eV. The above value is in satisfactory agreement with those estimated from measurements of the resistivity and Hall constant. The authors express their sincere thanks for the help and interest of Professor W. Trzebiatowski, who supervised these investigations. Orig. art. has: 1 formula and 2 figures. [JA]

SUB CODE: 20/ SUBM DATE: 21Jun66/ ORIG REF: 002/ OTH REF: 002
SOV REF: 001/ ATD PRESS: 5057

Card 2/2 hs

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

26315
P/045/61/020/008/001/004
B109/B202

26.2532
24.2700

AUTHOR: Zdanowicz, Witold

TITLE: Thermoelectrical properties of cadmium arsenide - Cd_3As_2

PERIODICAL: Acta Physica Polonica, v. 20, no. 8, 1961, 647-655

TEXT: Measurements of the temperature dependence of the thermo-emf between Cd_3As_2 and Cu permit conclusions as to the position of the Fermi level, the degree of degeneracy of the electron gas, and the amount of the effective electron mass in Cd_3As_2. Measurements of the thermo-emf and its temperature dependence $\alpha = f(T)$ at a mean temperature gradient from 10 to 12°C showed a continuous decrease of α from the value $\alpha = -60\mu v/^oK$ at 300°K to $\alpha = -90\mu v/^oK$ at 500°K from which it slightly rose again up to a value $\alpha = -85\mu v/^oK$ at 700°K. Since in Cd_3As_2 the conditions developed by Tauc, J., Matyáš, (Czech. J. Phys., 5, 369 (1955)) and Samoilovich, A. Ch., Korenblit, L. L. (Uspekhi. fiz. Nauk, 57, 577 (1955)) are correct, the reduced Fermi level $\eta = \zeta/kT$ can be calculated with known thermo-emf by

Card 1/6

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

26315
P/045/61/020/008/001/004
B109/B202

Thermoelectrical properties of...

means of $$\alpha = \pm \frac{k}{e}\left\{\frac{2+r}{1+r}\cdot\frac{F_{r+1}(\eta)}{F_r(\eta)} - \eta\right\}$$

where $$F_r(\eta) = \int_0^\infty \frac{x^r}{1+e^{x-\eta}}\,dx$$

(Fermi function). If η is plotted versus temperature, η decreases hyperbolically in the range of approximately 300°K ($\eta \approx 4.8$) to 500°K; at approximately 500°K it attains its minimum ($\eta = 2.8$) after which it increases again and attains the value 3.1 at approximately 700°K. η never becomes smaller than 2, hence, the electron gas is degenerate. The Fermi level $\zeta = \eta kT$ lies in the conduction band and is only weakly temperature-dependent; in the temperature range 290 to 700°K ζ varies between -0.12 ev and -0.17 ev as calculated from the bottom of the conduction band. The electron mobility is calculated by multiplying the known term $\mu_H = \frac{8}{3\pi}(R\sigma)$ with the correction factor f_1 following from the temperature dependence of η and taking account of the degeneracy of the electron gas (Fig. 4). The

Card 2/6

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

Thermoelectrical properties of...

temperature course of the Hall mobility μ_H is shown in Fig. 4 with and without consideration of degeneracy. If, instead of $R\sigma$, $T\sigma$ is plotted versus temperature, practically a straight line is obtained, which in turn indicates a degeneracy of the electron gas. Using

$$R_n = -\frac{3\pi}{8e} \cdot \frac{1}{n} \cdot f_1(\eta)$$

(R_n Hall coefficient) the temperature dependence of the electron concentration n can be calculated (Fig. 6 with and without correction) which is connected with the effective electron mass by

$$n = \left(\frac{m_n^*}{m_o}\right)^{3/2} A \frac{2}{\sqrt{\pi}} F_{1/2}(\eta).$$

If the normalized effective electron mass m_n^*/m_o resulting therefrom is plotted versus temperature, m_n^*/m_o remains practically constant between 290°K and approximately 440°K after which it increases like $m_n^*/m_o \approx T^{0.9}$. The degeneracy of the electron gas is caused by the high carrier concen-

Card 3/6

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

26315
P/045/61/020/008/001/004
B109/B202

Thermoelectrical properties of...

tration ($2.5 \cdot 10^{18}$ cm^{-3}), the low activation energy (0.14 ev) and the small effective electron mass. The data on the width of the forbidden band which strongly diverge as a result of the different methods of measurement used (0.6 ev when measuring the optical absorption constant, 0.14 ev when measuring the electric conductivity) can be explained qualitatively, since due to the similarity between Cd_3As_2 and InSb the energy band model given by Burstein E.(Phys. Rev., 93, 632 (1954)) for InSb also holds for Cd_3As_2, i.e., for measurements of the optical absorption edge only the direct transitions of optical electrons from the valence band to lower levels lying on the Fermi level in the conduction band are obtained. The author thanks Professor W. Trzebiatowski for supervising the studies and Mr. Raułuszkiewicz and Kołodziejczak of the Institute of Physics PAN in Warsaw for valuable remarks. There are 7 figures and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institute of Physical Chemistry Polish Academy of Sciences, Department of Physics, Institute of Technology, Wrocław

SUBMITTED: March 9, 1961

Card 4/6

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

Zdanowicz Witold

POLAND/Solid State Physics - Processes of Crystallization and Crystal Morphology E-8

Abs Jour : Ref Zhur - Fizika, No 3, 1958, No 6005

Author : Zdanowicz Witold
Inst : Not G iven
Title : Purification of Substances by Zonal Melting

Orig Pub : Postepy fiz., 1957, 8, No 2, 147-164

Abstract : No abstract

Card : 1/1

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ANISIMOWICZ, Zofia; PIELOWSKA, Elzbieta; SZAWLOWSKI, Kazimierz; ZDANOWICZ, Zygmunt

Effect of somatotropin on the recovery of muscles in paresis and atrophy in poliomyelitis. Chir. narzad. ruchu ortop. pol. 27 no.4:511-516 '62.

1. Z Sanatorium Rehabilitacyjnego dla dzieci po H.M. w Gdansku Dyrektor: dr Z. Anisimowicz.
(POLIOMYELITIS) (SOMATOTROPIN)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWICZ, Z.

It is possible to accomplish the supply plan with a surplus. p. 4.

ROLNIK SPOKDZIELCA. (Centrala Rolniczej Spolkzielni "Sampopomoc Chlopska") Warszawa, Poland. Vol. 8, no. 43, Oct. 1955.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960.

Uncl.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

JANCZURA, Ewa; ZDANOWSKA, Barbara

Cell wall in B. subtilis. I. Isolation of cell walls and their fractionation. Med.dosw.mikrob. 13 no.4:345-355 '61.

1. Z Zakladu Bakteriologii Panstwowego Zakladu Higieny w Warszawie.

(BACILLUS SUBTILIS)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

TABEAU, Jerzy; WOJCIKIEWICZ, Olga; HLADIJ, Jaroslaw; CZARNECKA-CHONKO, Danta; ZDANOWSKA, Krystyna

Clinical significance of abnormally high T wave. I. Electrocardiographic aspects. Pol. tyg. lek. 19 no.35:1318-1321 31 Ag '64.

1. Z I Kliniki Chorob Wewnetrznych Akademii Medycznej w Krakowie (kierownik: prof. dr Leon Tochowicz).

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

KALUZNIACKA, Anna; ZDANOWICZ, Hanna

Results of treatment of rheumatic children at the Rehabilitation Sanatorium in Krasnobrod. Pol. tyg. lek. 19 no.52:2001-2003 28 D'64.

1. Z II Kliniki Pediatrycznej Akademii Medycznej w Lublinie (kierownik: doc. dr.med. A. Gebala).

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

SZYBINSKI, Zbigniew; CIBA, Tadeusz; PYZIK, Zbigniew; ZDANOWSKA, Krystyna

Hypertension and the indices of thyroid function in simple goiter and in hyperthyreidism. Pol. tyg. lek. 20 no.20:710-712 17 My '65.

1. Z I Kliniki Chorob Wewnetrznych AM w Krakowie (Kierownik: prof. dr. Leon Tochowicz) i z Wojewodzkiej Poradni Endokrynologicznej dla Doroslych w Krakowie (Kierownik: dr. med. Tadeusz Ciba).

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWSKI, A.

POLAND / Chemical Technology, Chemical Products and Their Application, Part 1. - Corrosion Protection Therefrom. H

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61326.

Author : Cyryl Niewiadomski, Antoni Zdanowski.
Inst : Institute of Mechanics.
Title : Aliting of Steel. 1. Properties of Alited Steel.

Orig Pub: Prace Inst. mech., 1957 (1958), 7, No 22, 11 - 19.

Abstract: The methods of preparation of low-carbon steel surface for aliting were studied. The optimum for aliting are found in the result of a study of the effects of the surface preparation, bath temperature, duration of aliting and addition (Si, Si-Zn and Si-Cu) contents in the melt on the plasticity of Al coatings. Bibliography with 29 titles.

Card 1/1 5

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWSKI, Andrzej, mgr inż.

New Polish standard for steel boiler pipes. Wiad hut 16 no.3: 92-95 Mr '60.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

HALAS, Andrzej; MORAW, Michal; SZRETER, Miroslaw; ZDANOWSKI, Jerzy

Technology of the nodistron digital indicator tube. Przegl elektroniki 3 no.6:336-338 Je '62.

1. Przemyslowy Instytut Elektroniki, Warszawa i Katedra Elektroniki, Politechnika, Wroclaw.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWSKI, Jerzy, mgr inz.

Digital tube, LC-1. Lacznosc Wroclaw 5:146-147 '62.

1. Katedra Elektroniki, Politechnika, Wroclaw.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

P/053/62/000/006/008/009
I010/I210

AUTHORS: Hałas, Andrzej, Moraw, Michał, Szreter, Mirosław, Zdanowski, Jerzy.

TITLE: The technology of the Nodistron type digital indicator tube

PERIODICAL: Przegląd Elektroniki, no.6, 1962, 336-338

TEXT: A prototype series of digital indicator tubes of the "Nixie" type has been prepared in the Dept. of Electronics of the Wrocław Polytechnic. The investigations showed that constantan used as the material for the digits evaporates after a long operation time of one digit and it deposits on the ceramic

Card 1/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

P/053/62/000/006/008/009
I010/I210

The technology of the...

spacers causing shorts. A 10-piece series is now being examined in the Dept. of Electronic Measurements of the Wrocław Polytechnic. The work was started in 1959. There is 1 figure.

ASSOCIATION: Przemysłowy Instytut Elektroniki (Industrial Institute of Electronics

Card 2/2

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANOWSKI, R.

Maintenance of active telecommunication installations. p. 213.

PRZEGLAD KOLEJOWY ELEKTROTECHNICZNY. (Wydawnictwa Komunikacyjne) Warszawa, Poland, Vol. 11, no. 7, July 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANSKA - BRINCKENOWA M.

POLAND / General Division, History, Classics, Personnel A-2

Abs Jour: Ref Zhur-Biologiia, No 5, 1958, 18845

Author : Zdanska-Brinckenowa M.

Inst : -

Title : Jerzy Damski (21. VII. 1919-22.X.1956)

Orig Pub: Wszechswiat, 1957, No 2, 53-54

Abstract: An obituary of the Polish anthropologist Dambski, the author of a number of works on the ethnogenesis and ancient history of the peoples of Western Asia and Africa.

Card 1/ 1

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANSKA-BRINCKENOWA, M.

In connection with Rasza Szlep's article " Marginal Remarks on the Conference of Zoologists. " p. 401.
(KOSMOS BIOLOGIA. Vol. 6, no. 4, 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957. Uncl.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANSKAYA, G.G.

SOLOV'YEV, V.V.; ZDANSKAYA, G.G.

Holocene stratigraphy of the southern Maritime Territory and Sakhalin; based on data of spore-pollen analysis. Inform.sbor. VSEGEI no.52:49-59 '62. (MIRA 15:11)
(Maritime Territory—Geology, Stratigraphic)
(Sakhalin—Geology, Stratigraphic)
(Palynology)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANSKIY, A.B.; SOLOV'YEVA, Ye.F.; EZROKHI, L.L.; LYAKHOVSKAYA, Ye.I. Prinimali uchastiye: SHITIKOVA, V.S.; BEL'DY, M.P.; ROMANOVA, V.A.; PEL'SH, A.D., red.; KOTS, V.A., red.; LEVIN, S.S., tekhn. red.; ERLIKH, Ye.Ya., tekhn. red.

[Handbook of experimental data on the solubility of salt systems] Spravochnik eksperimental'nykh dannykh po rastvorimosti solevykh sistem. Leningrad, Goskhimizdat. Vol.4.[Two-component systems; elements of the IInd group and their compounds] Dvukhkomponentnye sistemy; elementy II gruppy i ikh soedineniia. Sost. A.B.Zdanskii i dr. Pod red. A.D.Pel'sha, 1963. 2231-2878 p. (MIRA 17:2)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii. 2. Fiziko-khimicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta galurgii (for Shitikova, Bel'dy, Romanova).

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANISKI, K.

Polish construction and road machines (conclusion). Stroi. i dor. mash. 9 no.12:31-34 D '64. (MIRA 18:3)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDANSKI, Franciszek, mgr., inz.

Some remarks on the economic effects of the grassland improvements made in the Zarnowiec region of the Pilica River valley. Gosp wodna 21 no.12: 531-532 D '61.

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"

"APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0

ZDAN'SKI, K. (Pol'skaya Narodnaya Respublika)

Polish construction and road machines (to be concluded). Stroi. i dor. mash. 9 no.11 87-11 N '64 (MIRA 18:2)

APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001964210008-0"